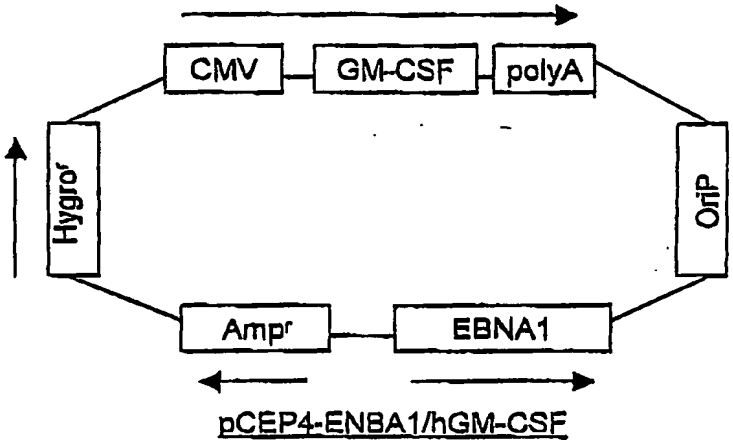

Figure 1

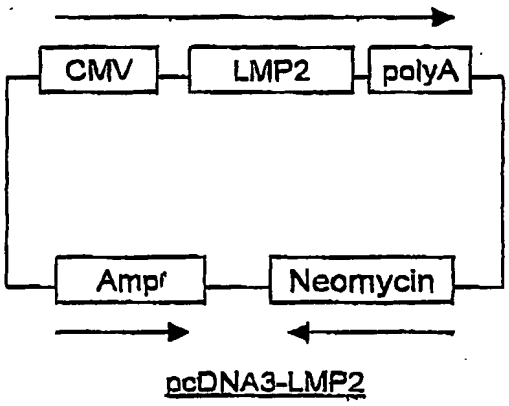

Figure 2

Homo sapiens interferon, alpha 1 (IFNA1), mRNA.
ACCESSION NM_024013
VERSION NM_024013.1 GI:13128949
1 agaacctaga gcccaaggtt cagagtcacc catctcagca agcccagaag tatctgcaat
61 atctacgatg gcctcgccct ttgctttact gatggtcctg gtggtgctca gctgcaagtc
121 aagctgctct ctgggctgtg atctccctga gacccacagc ctggataaca ggaggacctt
181 gatgctcctg gcacaaatga gcagaatctc tccttcctcc tgtctgatgg acagacatga
241 ctttggattt ccccaggagg agtttgatgg caaccagttc cagaaggctc cagccatctc
301 tgtcctccat gagctgatcc agcagatctt caacctcttt accacaaaag attcatctgc
361 tgcttgggat gaggacctcc tagacaaatt ctgcaccgaa ctctaccagc agctgaatga
421 cttggaagcc tgtgtgatgc aggaggagag ggtgggagaa actcccctga tgaatgcgga
481 ctccatcttg gctgtgaaga aatacttccg aagaatcact ctctatctga cagagaagaa
541 atacagccct tgtgcctggg aggttgtcag agcagaaatc atgagatccc tctctttatc
601 aacaaacttg caagaaagat taaggaggaa ggaataacat ctggtccaac atgaaaacaa
661 ttcttattga ctcatacacc aggtcacgct ttcatgaatt ctgtcatttc aaagactctc
721 acccctgcta taactatgac catgctgata aactgattta tctatttaaa tatttattta
781 actattcata agatttaaat tatttttgtt catataacgt catgtgcacc tttacactgt
841 ggttagtgta ataaaacatg ttccttatat ttactc

Homo sapiens interferon, alpha 2 (IFNA2), mRNA.
ACCESSION NM_000605
VERSION NM_000605.2 GI:11067750
1 gagaacctgg agcctaaggt ttaggctcac ccatttcaac cagtctagca gcatctgcaa
61 catctacaat ggccttgacc tttgctttac tggtggccct cctggtgctc agctgcaagt
121 caagctgctc tgtgggctgt gatctgcctc aaacccacag cctgggtagc aggaggacct
181 tgatgctcct ggcacagatg aggagaatct ctcttttctc ctgcttgaag gacagacatg
241 actttggatt tccccaggag gagtttggca accagttcca aaaggctgaa accatccctg
301 tcctccatga gatgatccag cagatcttca atctcttcag cacaaaggac tcatctgctg
361 cttgggatga gaccctccta gacaaattct acactgaact ctaccagcag ctgaatgacc
421 tggaagcctg tgtgatacag ggggtggggg tgacagagac tcccctgatg aaggaggact
481 ccattctggc tgtgaggaaa tacttccaaa gaatcactct ctatctgaaa gagaagaaat
541 acagcccttg tgcctgggag gttgtcagag cagaaatcat gagatctttt tctttgtcaa
601 caaacttgca agaaagttta agaagtaagg aatgaaaact ggttcaacat ggaaatgatt
661 ttcattgatt cgtatgccag ctcacctttt tatgatctgc catttcaaag actcatgttt
721 ctgctatgac catgacacga tttaaatctt ttcaaatgtt tttaggagta ttaatcaaca
781 ttgtattcag ctcttaaggc actagtccct tacagaggac catgctgact gatccattat
841 ctatttaaat atttttaaaa tattatttat ttaactattt ataaaacaac ttatttttgt
901 tcatattatg tcatgtgcac ctttgcacag tggttaatgt aataaaatgt gttctttgta

Fig. 3

961 tttggtaaat ttattttgtg ttgttcattg aacttttgct atggaacttt tgtacttgtt

1021 tattctttaa aatgaaattc caagcctaat tgtgcaacct gattacagaa taactggtac

1081 acttcatttg tccatcaata ttatattcaa gatataagta aaaataaact ttctgtaaac

1141 ca

Fig. 3 (cont.)

Homo sapiens interferon, gamma (IFNG), mRNA.
ACCESSION NM_000619
VERSION NM_000619.1 GI:10835170

1 tgaagatcag ctattagaag agaaagatca gttaagtcct ttggacctga tcagcttgat
61 acaagaacta ctgatttcaa cttctttggc ttaattctct cggaaacgat gaaatataca
121 agttatatct tggcttttca gctctgcatc gttttgggtt ctcttggctg ttactgccag
181 gacccatatg taaaagaagc agaaaacctt aagaaatatt ttaatgcagg tcattcagat
241 gtagcggata atggaactct tttcttaggc attttgaaga attggaaaga ggagagtgac
301 agaaaaataa tgcagagcca aattgtctcc ttttacttca aacttttaa aaactttaaa
361 gatgaccaga gcatccaaaa gagtgtggag accatcaagg aagacatgaa tgtcaagttt
421 ttcaatagca acaaaaagaa acgagatgac ttcgaaaagc tgactaatta ttcggtaact
481 gacttgaatg tccaacgcaa agcaatacat gaactcatcc aagtgatggc tgaactgtcg
541 ccagcagcta aaacagggaa gcgaaaaagg agtcagatgc tgtttcaagg tcgaagagca
601 tcccagtaat ggttgtcctg cctgcaatat ttgaatttta aatctaaatc tatttattaa
661 tatttaacat tatttatatg gggaatatat ttttagactc atcaatcaaa taagtattta
721 taatagcaac ttttgtgtaa tgaaaatgaa tatctattaa tatatgtatt atttataatt
781 cctatatcct gtgactgtct cacttaatcc tttgttttct gactaattag gcaaggctat
841 gtgattacaa ggctttatct caggggccaa ctaggcagcc aacctaagca agatcccatg
901 ggttgtgtgt ttatttcact tgatgataca atgaacactt ataagtgaag tgatactatc
961 cagttactgc cggtttgaaa atatgcctgc aatctgagcc agtgctttaa tggcatgtca
1021 gacagaactt gaatgtgtca ggtgaccctg atgaaaacat agcatctcag gagatttcat
1081 gcctggtgct tccaaatatt gttgacaact gtgactgtac ccaaatggaa agtaactcat
1141 ttgttaaaat tatcaatatc taatatatat gaataaagtg taagttcaca act

Fig. 3 (cont.)

Human papilloma virus type 59, complete viral genome.

ACCESSION X77858

VERSION X77858.1 GI:557236

Rho,J., Roy-Burman,A., Kim,H., de Villiers,E.M., Matsukura,T. and Choe,J.

TITLE Nucleotide sequence and phylogenetic classification of human papillomavirus type 59

JOURNAL Virology 203 (1), 158-161 (1994)

1 gttaagaccg aaaacggtgc atataaaggt agttgaaaag aaaagggcaa cggcatggca
61 cgctttgagg atcctacaca acgaccatac aaactgcctg atttgagcac aacattgaat
121 attcctctgc atgatattcg catcaattgt gtgttttgca aaggggaact gcaagaaaga
181 gaggtatttg aatttgcttt taatgactta tttatagtgt atagagactg tacaccgtat
241 gcagcgtgtc tgaaatgcat ttcattttat gcaagagtaa gagaattaag atattataga
301 gattccgtgt atggagaaac attagaggct gaaaccaaga caccgttaca tgagctgctg
361 atacgctgtt atagatgcct aaaacctcta tgtccaacag ataaattaaa gcatataact
421 gaaaaaagaa gattccataa tatagctgga atatatacag gacagtgtcg tgggtgtcgg
481 acccgagcaa gacacctaag acagcaacga caagcgcgta gtgaaacact ggtgtaaaac
541 aatgcatgga ccaaaagcaa cactttgtga cattgtttta gatttggaac cacaaaatta
601 tgaggaagtt gaccttgtgt gctacgagca attacctgac tccgactccg agaatgaaaa
661 agatgaacca gatggagtta atcatccttt gctactagct agacgagctg aaccacagcg
721 tcacaacatt gtgtgtgtgt gttgtaagtg taataatcaa cttcagctag tagtagaaac
781 ctcgcaagac ggattgcgag ccttacagca gctgtttatg gacacactat cctttgtgtg
841 tcctttgtgt gcagcaaacc agtaacctgc aatggccgat tcggaaggta cagatgggga
901 agggacgggg tgcaatggat ggtttttgt gcaggcaata gtagataaaa aaacaggtga
961 caaaatttca gatgacgagg atgaaaatgc aacagataca ggttcagact tggtagattt
1021 tattgatgat accacaacaa tttgtgtaca ggcagagcgc gagacagcac aggccttgtt
1081 taatgtgcag gaagcccaaa gggatgcacg ggaaatgcat gttttaaaac gaaagtttgg
1141 gtgcagtata gaaaacagta gtgagaaagc ggcggcagga aaaaaagcta agtcaccatt
1201 acaagaaata tcagtaaatg ttaaccaccc aaaagtaaaa agaaggttaa taacagtgcc
1261 agacagcggc tatggctatt ctgaagtgga aatgctcgag actcaggtaa ccgtggagaa
1321 tactggaaat ggggatagca atggcagtgt ttgtagcgac agtcaaatag actgtagcga
1381 cagcagtaac atggatgttg aaaacatagt tccaacatcc cccactaatc aattgttaca
1441 gttattacat agcaaaaata agaaagcagc tatgtatgca aaatttaaag aattgtatgg
1501 gttatcattt caagatttgg ttaggacatt taaaagtgac agaactacct gtagcgattg
1561 ggtaaccgcc atttttggtg ttaatccaac tgtagcagaa ggatttaaaa cattaataca
1621 accctatgtg ctatatgcac atatacaatg cttagattgt gcatggggag tagtaatatt
1681 agcattatta agatataaat gtggaaaaaa tagaataaca gttgcaaaag gacttagcac
1741 attactacat gtaccagata cgtgcatgtt aattgaacca cccaaattgc gtagtggtgt
1801 tgcagcacta tattggtaca gaacaggaat gtccaatatt agtgaagtta taggggaaac
1861 gcccgaatgg atacaaagac taacaattat acaacatgga gttgatgata gcgtgtttga
1921 cctgtcagaa atgatacaat gggcgtttga taatgaccta acagatgaaa gtgatattgc

Fig. 3 (cont.)

1981 atatgaatat gcattaatag cagatagtaa tagtaacgcc gctgcatttt taaaaagcaa
2041 ctgccaggca aaatacctaa aagattgtgc agttatgtgt aggcattata aaagagcaca
2101 aaaaagacaa atgagtatgt cacagtggat aaaatggaga tgtgataaaa tagaagaggg
2161 gggagattgg aaacccatag tacaattttt aagatatcaa ggagtagaat ttataacgtt
2221 tttatgtgca ttaaaagatt ttttaaaagg taccccaaaa agaaattgca ttgtgctgtg
2281 tgggccagca aatacaggca agtcatactt tggaatgagc ctgctacatt ttttacaagg
2341 aactgtaatt tcacatgtaa attcaaatag tcacttttgg ctagaacctt taacagatcg
2401 taaattagct atgctagacg atgcaacaga tagttgttgg acatattttg atacatatat
2461 gcgaaatgct ttggatggca atcctataag tgtagataga aagcataggc acctagtaca
2521 aattaaatgt ccaccaatgc ttattacatc aaatacaaat ccagttacag ataacaggtg
2581 gccatattta aatagcagat taatggtatt taaatttcca aacaaattgc catttgacaa
2641 aaatagaaat ccagtatata caattaatga cagaaactgg aaatgttttt ttgaaaggac
2701 gtggtgcaga ttagatttga acgaggaaga ggaagatgca gacagtgatg gacacccttt
2761 cgcagcgttt aagtgtgtta caggatcaaa tattagaaca ttatgaaaac gatagtaaag
2821 acattaatga acacataaac tattggaaac tggtgcgtat ggaaaatgta attttatttg
2881 cagcaagaga gaacaatata catacattaa accaccaggt ggtgccaacg tttttggtgt
2941 ctaaaaacaa ggcatgtgaa gctattgaac tgcagtcaaa ccgtacttcc actgtaatgc
3001 cctgtttttt aaaacatttt ttaggtgctg tttgccatag ttcttggcat gtttcttgca
3061 ttgtccattg ctcattttta aactcagttt gtgccaaact ctctaacgcc atctgcagca
3121 aggaaaacac aatgcattac acaagctgga catttatata ttatgtaaat gatgtaggac
3181 agtggtgtaa aaccacagga aatgtggact tttggggact atattataaa gtggaagagg
3241 aacaggtgta ctatgtaaaa tttatacatg atgccaaaaa atatgggact acagacaagt
3301 gggaagtgca ttataatggc aaggttattg attgttatga ctctatgtgc agtaccagtg
3361 acgagcaagt atccactgct ggatcttctg agcaactatc ataccctcc gcaacgcccc
3421 ccgaagccac gtacttgggc ccccaaacgt ggaaccgtca gacgaagact ggaaagcgac
3481 caagacagtg tggatacaca cagcaccctc agtctaccag cgtgtcagtg gactactgtg
3541 acaacccagt cgtccgtttg catccaggca acaacccgcg acggcacatc ccttgcagta
3601 acactacgcc tataatacac ttaaaaggtg acaaaaatgg ccttaagtgt ttaaggtata
3661 gattaagaaa agtacactgg ttatttgaaa atatttcctc tacctggcat tggacaggaa
3721 acagaggatc agccaaaaca ggcattttaa cattaacata tacaagcgaa acacaacgca
3781 atgaattttt agatactgta aaaattccta atagtgtaca aatacatgtt gggtatatga
3841 gtgtgtaatg gttgttatgc aaatgtaaca caagccaata ctgctgctat attgtatagc
3901 tgaggaaatg ataacccttg tatttgtgtg ttgtgtttgt gtttgcttgt gtgtgtgttg
3961 caatgtcccg cttctgcaat ctgtctatat gtgtgcatat acatggttac tagtatttgt
4021 gtatattgtg gttatcacct cctcatatga gtgtttttta ctatatatat tgttttttat
4081 aattccactg ttactactat atgcccatgc aatactgtcc atacaataat tgctgtatat
4141 tgtaaattac attgcactgt attgtacagt atattttaaa cacattatta tttttgttag
4201 gtgttggttt tgttacattt ataataaaac atggtttccc atcgtgctgc tcgtcgtaaa
4261 cgtgcctcag caacagactt atataaaact tgcaagcagg caggtacatg cccttctgat

Fig. 3 (cont.)

4321 gttattaata aagttgaagg tacaacttta gctgataaaa tattgcagtg gaccagccta
4381 ggaatatttt taggtggact aggtattggt actggatctg gtaccggtgg cagaacaggg
4441 tacatacctt taggggggcg tacaaacact atagtagatg tatcgcctgc taaaccacca
4501 gtagttattg aacctgttgg acctacagat ccatctatag ttacattagt tgaggattct
4561 agtgttataa catctggagc ccctgcccca acatttacag gtacttcagg atttgaaata
4621 tctacctcta gtacaacaac accagctgtt ttggatataa ccccaacctc ttctgttcaa
4681 attagtagct ctagttttat aaatcctgca tttacagacc cttctgtcat tgaggttccc
4741 caaacaggtg aaatttctgg taatatatta attagtaccc ctacctctgg tgcacatggc
4801 tatgaagaaa ttccaatgca aacgtttgct acggaaggta ctggtttgga acccattagc
4861 agtaccccca atccaacagt acgtcgtgtg gctggaccta gattgtacag tagggctaat
4921 caacaagttc gggtgtctaa cgctgacttt ttaacacgtc catccacatt tgttacatat
4981 gataaccctg cttatgatcc aattgatact acattaactt ttgacccctc atcagaggtt
5041 ccagacccgg actttatgga tatagttcgt ttgcataggc ctgcattaac atccagacgc
5101 agcactgtaa ggtttagtag gctaggacaa cgggcaacca tgtttacccg tagtggtaaa
5161 caaattgggg cccgtgtaca tttttatcat gatataagcc ctataccaca tgctgaagat
5221 attgaattgc aacctcttgt ttcttcccag gctgctactg atgatatata tgatatatat
5281 gcagatatta cagatgaagc acctactagt actgccaaca ctgcatttac aattcctaaa
5341 tcttcttttc aaagtttgtc attaacacgg tcggcatcta gcacctttтc aaatgtaact
5401 gttcctttgg ctactgcctg ggatgttcct gtaaatacag gacccgatat agttttacct
5461 aatactaata ttgttgaacc cacttattct actacaccct ttaccaccat acagtctatt
5521 aatatagaag gcacaaatta ttttttatgg cctatatatt atttttacc tcgtaaacgt
5581 aaacgtgttc cctatttttt tacagatggc tctatggcgt tctagtgaca acaaggtgta
5641 tctacctcca ccttcggtag ctaaggttgt cagcactgat gagtatgtca cccgtaccag
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5761 acctaaaggt ggtaatggta gacaggatgt tcctaaggtg tctgcatatc aatacagagt
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5881 tcctaactct caacgcttgg tctgggcctg tgtaggtgtt gaaatcggtc ggggccaacc
5941 tttaggggta ggactcagtg gtcatccatt atataataaa ttggatgaca ctgaaaactc
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6181 tacaccaatt gaagatggtg atatggtaga cacaggatat ggggctatgg actttaaatt
6241 gttgcaggat aacaaaagtg aagtaccatt ggatatttgt cagtctattt gtaaatatcc
6301 tgattattta caaatgtcag cagatgctta tggagacagt atgttttttt gtttaaggcg
6361 agaacaggtt tttgccagac atttttggaa tagatctggt actatgggtg atcaacttcc
6421 tgaatcacta tatattaaag gtactgacat acgtgccaac ccaggcagtt atttatattc
6481 cccttcccca agtgggtctg tggttacttc tgattcacaa ttatttaata aaccatattg
6541 gctgcacaag gctcagggtt taaacaatgg tatatgttgg cacaatcaat tgtttttaac
6601 agttgtagat actactcgca gcaccaatct ttctgtgtgt gcttctacta cttcttctat

Fig. 3 (cont.)

6661 tcctaatgta tacacaccta ccagttttaa agaatatgcc agacatgtgg aggaatttga
6721 tttgcagttt atatttcaac tgtgtaaaat aacattaact acagaggtaa tgtcatacat
6781 tcataatatg aataccacta ttttggagga ttggaatttt ggtgttacac cacctcctac
6841 tgctagttta gttgacacat accgttttgt tcaatctgct gctgtaactt gtcaaaagga
6901 caccgcaccg ccagttaaac aggaccctta tgacaaacta aagttttggc ctgtagatct
6961 taaggaaagg ttttctgcag atcttgatca gtttcctttg ggacgtaaat ttttattgca
7021 attaggagct agacctaagc ccactatagg cccacgcaaa cgtgcagcgc ctgcccctac
7081 ctctacccca tcaccaaaac gtgttaagcg tcgcaagtct tccagaaaat agtgttgttt
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7261 gtatgcatga cagtttcatg tgtggttgca cccaatgagt aaggtactgt ccctttattg
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7381 cttcattttg tcctgaatgt ccagttttgc atttgcacat tatatggcgt ccattttatc
7441 ctttaaatcc tccattttgc tgtgcaaccg ttttcggtta ccttggttta accttacctt
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7561 tacacgccta gactactaac acaacttaca aacgccaaat agttagtcat catcctgtcc
7621 aggtgcactc taacaatact tgcataactt tggtggcgcc cttgttaata aaacagcttt
7681 taggcacata ttttcactgt ttttactact ttaattgcat aattggcttg caaaactact
7741 gtgcaatcca agaatgtgtc tataatttat tgtaaaaaac atgactaagg tttttgtcat
7801 tgttaagcaa ccgaaaaagg tcgggcaagt acatgcacac tttctactta ttacttttta
7861 caatcatagt aataaaaaag ggtgtaaccg aaaacg

Fig. 3 (cont.)

Human papilloma virus type 59, complete viral genome.
ACCESSION X77858
VERSION X77858.1 GI:557236

3908..4129 gene="ORF putative E5"
atg ataacccttg tatttgtgtg ttgtgtttgt gtttgcttgt gtgtgtgttg
3961 caatgtcccg cttctgcaat ctgtctatat gtgtgcatat acatggttac tagtatttgt
4021 gtatattgtg gttatcacct cctcatatga gtgtttttta ctatatatat tgttttttat
4081 aattccactg ttactactat atgcccatgc aatactgtcc atacaataa

55..537 gene="ORF putative E6"
atggca
61 cgctttgagg atcctacaca acgaccatac aaactgcctg atttgagcac aacattgaat
121 attcctctgc atgatattcg catcaattgt gtgttttgca aaggggaact gcaagaaaga
181 gaggtatttg aatttgcttt taatgactta tttatagtgt atagagactg tacaccgtat
241 gcagcgtgtc tgaaatgcat ttcattttat gcaagagtaa gagaattaag atattataga
301 gattccgtgt atggagaaac attagaggct gaaaccaaga caccgttaca tgagctgctg
361 atacgctgtt atagatgcct aaaacctcta tgtccaacag ataaattaaa gcatataact
421 gaaaaaagaa gattccataa tatagctgga atatatacag gacagtgtcg tgggtgtcgg
481 acccgagcaa gacacctaag acagcaacga caagcgcgta gtgaaacact ggtgtaa

542..865 gene="ORF putative E7"
atgcatgga ccaaaagcaa cactttgtga cattgtttta gatttggaac cacaaaatta
601 tgaggaagtt gaccttgtgt gctacgagca attacctgac tccgactccg agaatgaaaa
661 agatgaacca gatggagtta atcatccttt gctactagct agacgagctg aaccacagcg
721 tcacaacatt gtgtgtgtgt gttgtaagtg taataatcaa cttcagctag tagtagaaac
781 ctcgcaagac ggattgcgag ccttacagca gctgtttatg gacacactat cctttgtgtg
841 tcctttgtgt gcagcaaacc agtaa

Fig. 3 (cont.)

Human papilloma virus type 13 DNA.

ACCESSION X62843 S43933

VERSION X62843.1 GI:60295

Van Ranst,M., Fuse,A., Fiten,P., Beuken,E., Pfister,H., Burk,R.D. and Opdenakker,G.

TITLE Human papillomavirus type 13 and pygmy chimpanzee papillomavirus type 1: comparison of the genome organizations

JOURNAL Virology 190 (2), 587-596 (1992)

1 gtttctaaca atcttaagtt taaaaaatag gtgggaccga aaacggtttt aaccgaaaac
61 ggtgatatat aaaccagccc aaaaattgag caagcggggc ataatggaaa gtgcaaatgc
121 ctccacgcct gcaaaaacta tagaccagtt gtgcaaggag tgcaaccttt ctatgcacag
181 cttgcaaatt ctatgcgtgt tctgcaggaa aaccctgtcc acggcagagg tttatgcatt
241 tcagtataag agtttatata tagtgtggcg aggacagttt ccatttgcgg cttgtgcatg
301 ctgcttagaa atacaaggaa agattaacca gtttaggcat tttgacttcg cgggatttgc
361 tgtaacagtt gaagaagaca caaagcagtc aattttggat gtgctaattc gctgctattt
421 atgccacaaa ccattgtgtg aagtggagaa actaagacat attttgcaga aggcacgatt
481 tattaaatta aacagcagtt ggaaaggccg ctgttttcat tgctggtcat catgcatgga
541 aaatatccta ccttaaaaga cattgtttta gagctgactc ctgaccctgt aggtctacat
601 tgcaatgagc aattagacag ctcagaagac gaggtggacg aacaagccac gcaagccacg
661 caagccacgc aacatagcac actattacaa tgctaccaaa tactaacgtc ctgtagtaaa
721 tgttgtagca acgtccggct ggtggtggag tgtacaggac ctgacattca cgacctacac
781 gacctactgc tgggcacgct gaatatagtg tgcccttgt gtgcaccaaa aagctaacca
841 cgatggcaga ggatacaggt actaataatg aggggacggg atgctcagga tggtttttag
901 tagaggctgt agtagaacga acaactgggc aacaaatatc agatgatgag gatgaaacag
961 tggaagatag tgggttggat atggtggatt tcatagatga cagacctatt acacacaatt
1021 ccgtggaagc acaggcattg ttaaacgagc aggaggcgga tgctcattat gcggctgtgc
1081 aggacctaaa acgaaagtat ttaggcagtc catatgttag tcccctagga catgttgaac
1141 agtcagtgga ctgtgatata agtcctcgat tggacgctat aaaattaagt agaaattcta
1201 aaaaagtaaa gcgacggctg tttcaatcaa gggaaataac ggacagtgga tatggctatt
1261 ctgaagtgga agctgaaacg caggtagaga gaaatggcga accggaaaat gattgtgggg
1321 gtggtggaca cggaagggac aaagaggggg agggacaggt gcacacggaa gtgcacacag
1381 gcagccagat agaagagcac acagggacca cgcgggtgtt agaactcctt aaatgtaagg
1441 atgtaagggc tacattgtat ggtaagttta aagactgtta tgggttatca tttacagatt
1501 taattagacc atttaaaagt gataaaacaa catgtgggga ctgggtggtt gcagcatttg
1561 gtatacatca tagtgtatca gaggcatttg aaaagttaat gcagccatta acaacatata
1621 tgcatataca atggcttaca aatgcatggg ggatggtatt gttagtatta ataagattta
1681 aagtaaataa aagtagatgc acagtggcgc gaacactggc aacctttctt aatattcctg
1741 aggaccacat gttaattgaa cctcccaaaa tacaaagcag tgtggcagca ttatactggt
1801 ttagaacagg tatttctaat gctagtatag taactggtga aacaccagaa tggataaaaa
1861 ggcaaacaat tgtagagcat ggacttgcag ataatcaatt taaattaact gaaatggtgc

Fig. 3 (cont.)

1921 agtgggcata tgataatgat ttttgtgatg aaagcgaaat agcatttgaa tatgcacaac
1981 gaggagattt tgattcaaat gccagggcat ttttaaatag taattgtcag gcaaaatatg
2041 taaaagattg tgcaacaatg tgcaagcatt ataaaaatgc agaaatgaaa aaaatgtcta
2101 tgaaacaatg gataacatat agaagtaaaa aaatagagga agcaggaaat tggaaaccaa
2161 tagtacaatt tttaaggcat caaaatatag aatttattcc atttttaagt aaattaaaat
2221 tgtggcttca tggcacgcca aagaaaaact gtattgcaat agtggggcca ccagatacag
2281 gcaaatcatg tttttgcatg agcttaatta agtttttagg gggcacagta attagttatg
2341 taaattcaag tagccatttt tggctgcagc cattatgtaa tgcaaaggta gctttgctag
2401 atgatgcaac gcagtcatgc tgggtatata tggacacata catgagaaat ttattagatg
2461 gcaatccaat gagcattgat agaaaacata agtctttagc attaataaaa tgtccgccat
2521 tattagtaac atctaatgta gacattacca aagatgacaa atataaatat ttgtatagta
2581 gagtaacaac acttacattt ccaaatccat tccctttga cagaaatggg aatgcagtat
2641 atgagttgtc tgatgcaaac tggaaatgtt tttttacaag attgtcagca agcctagata
2701 tacaggactc tgaggacgag gacgatggag acaatagcca agcatttaga tgcgtgccag
2761 gaacagttgt tagaactgta tgaagaaaat agtaatgaac ttaaaaaaca tatacaacat
2821 tggaaatgct taaggtacga aagtgtactc ttacacaaag cacgccaaat gggcctaagc
2881 cacattggat tacaagtggt gccaccattg acagtatcac aagctaaggg acatgaggca
2941 attgaaatgc aaatgacttt agagacatta ctagagtctg agtttggtat ggaaccatgg
3001 actttacaag atacaagtcg tgaaatgtgg ctaacacccc caaaacgctg ttttaagaaa
3061 cagggacaaa ctgtggaagt aaaatatgac tgtaatacag acaatagaat ggattatgtg
3121 tcgtggacat acatatatgt gtttgacaca gataaatgga caaaggtgaa aggaatggta
3181 gattataaag ggttgtacta catacatgga aatttgaaaa catattattt agagtttgaa
3241 aaggaggcta aaaaatatgg ggaaacgtta caatgggaag tatgtattgg cagcacagtc
3301 atatgttctc ctgcatctgt atctagtact gtacaagaag tatccattgc tgggcctgct
3361 tcatactcca ccaccacctc cacacaggcc tccaccgcag tgtcctgcag cgcctcggaa
3421 gaatgtgtgc aagcgccgcc ttgtaaacga caacgaggac cttcacgtcc cattggaaac
3481 ccccagaaca cacaaagcat tgtgtgtgtc acagactacg acaccctgga cagtgcaaac
3541 aacaacatca acgttaacca ttacaacaat aacaaaggac gggacaacag ttactgtgca
3601 gctacaccta tagttcaatt acaaggtgac tctaattgtc taaagtgttt tcgatataga
3661 ttacatgaaa aatataaaga tttatttttg ttagcatcat ctacatggca ttggaccgcc
3721 cctaataatt cacaaaaaca tgcactggta accttaacct atgtaaatga acaacaaaga
3781 caagactttt taaaaactgt aaaaatacct ccaaccataa cacataaact aggttttatg
3841 tcattgcaat tgttataaca gcatatattg tatgtaaata tttgttgtgt gtgtgtatat
3901 attgtaaatg gaatttatac ctgtggatgt tagtacacag gcaaccagca agtcattact
3961 gccacttgta attgcactta cagtgtgtgt agttagcatt ataacaatat tgtgcatatc
4021 agagttcttg gtgtacacaa acgttttagt actaacatta attttatatg tacttttgtg
4081 gcttttacta acaactccct tgcaattcta tttactaacc ctgtctcttt gctttcttcc
4141 tgcgttgtgt gtacaccaat atattttaca aacacaagaa taactataca caatgttaac
4201 ctgtactttt gatgatggtg acacatggtt gctattatgg ttaattttat catttattgt

Fig. 3 (cont.)

4261 agccattcta gggttactgt tgctgtatat aagaactgga catatgcatt gccagtgctg
4321 gagtaaataa gtggttttat attttgtgtg tattcattta attatggcac atagtagggc
4381 tcgcagacgc aaacgcgctt cagctacaca actatatcaa acttgtaagg cttctggaac
4441 atgtcctcct gatgttatac caaaggttga acaaaacact cttgcagata aaatattaaa
4501 gtggggcagt ttaggagtat tttttggggg gcttggcatt ggcacaggct ctggtactgg
4561 cggtaggact ggctatgtac cagtaggatc caccccacgc cctgccatat caactgggcc
4621 tactgcacgt cctcctattg ttgttgatac tgttgggcct acagaccctt ctattgtatc
4681 tttggtagag gaatcagcta ttattaattc tggagtacct gacccttttgc ctcccgttca
4741 tgggggtttt gaaatcacca catctcaatc agccactcca gcaatattgg atgtgtctgt
4801 tacaacacaa aacactacgt ccacaagtat atttagaaat cctgtttttt cagaaccttc
4861 tattacacaa tctcaacctt ctattgaaag tggtgcacac gtgtttatat cgccatctac
4921 tatttcccct cattctacag aagacattcc tttagataca tttattgtat cttcctcaga
4981 tagtaatcct gcatcaagca cccctgttcc agcaactgtt gcacgtccac gtctaggcct
5041 ttacagtagg gccttacatc aagtacaggt tactgatcct gccttttat cgtcgcccca
5101 acgccttata acctttgata accctacata tgaaggtgaa gatataagtt tgcagtttgc
5161 acacaatacc attcatgaac cccctgatga ggcatttatg gatattataa gactacatag
5221 gccagccata acatcacggc gtggtcttgt taggtttagt agaattggtc agaggggtc
5281 tatgtatact cgaagcggca agcatatagg tggaagggtc catttcttta aggatatttc
5341 tcctatatct gcagctgcag aagaaataga attacacccc cttgtggctg ctgcacagga
5401 tcacagtggt ttgtttgata tttatgcaga acctgaccct gaccctgtgg ctgtaaacac
5461 ctctgggtca ttgtcttctg cctccacacc atttgcacaa tcttctttgt cttccgcccc
5521 atggggtaat actactgttc ctctttcact accaggtgat atatttatac agcctggtcc
5581 tgacataaca ttcccaactg cacctacagt aacgccttat aatcctgtta cgcctgcttt
5641 acctacaggt cctgttttta ttactgcttc tggattttat ttatatccta catggtattt
5701 tacacgcaaa cgccgtaaac gtgtttcctt gttttttaca gatgtggcgg cctagtgaca
5761 acaaactata tgtgcctcct cccgcccctg tatcaaaagt aattactacg gatgcctatg
5821 ttacacgtac caacatattt tatcatgcta gcagttctag actacttgca gtgggaaatc
5881 cttattttcc tattaagaaa caaaacaaaa ctgttgtccc taaggtatct ggttatcagt
5941 ttagggtatt taaagttgta ttacctgacc ctaataaatt tgccctgcct gacacatcta
6001 tatttgactc aactagtcaa cgcttagtgt gggcctgtac aggtttagag gttggtaggg
6061 gtcaaccctt aggtgttggt attagtggtc atccattatt aaataaatat gatgatgtgg
6121 aaaattctgc aagttatgct gccaatcctg gtcaggataa tagggttaat gtggccatgg
6181 actataaaca aacacagtta tgtttagtgg gctgtgcacc tcctttaggt gaacattggg
6241 gacagggcaa gcaatgtact ggtgtaaatg tacaacctgg agattgccct cctttagaat
6301 taattagtag tgtaattcag gatggtgaca tggtggatac aggatttgga gccatgaatt
6361 ttgcggaatt gcaatctaat aaatctgatg tgccactaga catatgcacg tccacatgca
6421 aatatcctga ctatttacaa atggctgcgg atccttatgg agacagatta ttttttatc
6481 tgcgaaagga acaaatgttt gcaaggcatt tctttaacag ggcaggctct gttggtgaac
6541 aaatcccagc agaattatat gttaagggta gtaatacact ttctaatagt atttactata

Fig. 3 (cont.)

6601 atactcccag tggctctctt gtgtcttctg aggcccagtt gtttaataaa ccttattggt
6661 tacaaaaggc ccagggacac aataatggta tatgttgggg caatcacttg tttgttactg
6721 tagttgatac tacacgcagt actaacatga ctgtgtgtgc agccactaca tcatctcttt
6781 cagacacata taaggccaca gaatataaac agtacatgcg acatgtagaa gaatttgatt
6841 tacaatttat ttttcaattg tgcactatta aattaactgc agaggttatg tcatatattc
6901 atactatgaa tcctacaatt ctagaagact ggaactttgg gctatctccc cctcctaatg
6961 gaacattaga agacacatat agatatgtac aatctcaggc cataacgtgt caaaagccta
7021 cacctgataa agaaaaacag gatccgtatg cgggtcttag tttttgggag gttaatctta
7081 aggaaaagtt ttctagtgaa ctagatcagt atccccttgg cagaaagttt ttattacaaa
7141 caggcgttca gtctaggtcc cctattcgtg taggtaggaa acgtgctgca tctacatcta
7201 ctgccacacc tactacacgt aaaaaagcta aaaggaaata atagtttgtt tatgattgtg
7261 tatgtatgtc acgtttgttt gtactgtatg tatgttgtgt actgtatgtg taatgttgta
7321 tgtatgtgca tgttacttat taaagaatgt gtgtgtgtgt ttgtatgcaa taaatctaat
7381 ctgtggtgtc ctgttccacc ctatgagtaa gtggtatgtt gtgtctcgtg tggtgttttg
7441 tatactatac tataacatta gtgcaaccat tttgtaactt ttcttacatt ttacgtctcc
7501 atattaagtg caaccgattt cggttgctat tgtttctgcg accgatttgt tgcagcacgc
7561 tgtttatata atcttaccta ccgcctgcca aaattatcca ccgcttgcca aaatcaccca
7621 cacacctggc gttgctaggg cgcggttata tatatttact aaatcttact aatctttcta
7681 tcactcattt taccttttata acaatacttt tgcttttcaa gtacattttt gtacttacta
7741 gccaatgcct gaaaggtttt ttggctacca gcactacatt tttgtacagt taatgttaca
7801 tgtataaaat gagtaaccta aggtcacaca cctgcaaacc ggtatcggtt aaaacacacc
7861 ctctatagtt ccttataatt

Fig. 3 (cont.)

Human papilloma virus type 13 DNA.
ACCESSION X62843 S43933
VERSION X62843.1 GI:60295

3908..4183 gene="E5"
atg gaatttatac ctgtggatgt tagtacacag gcaaccagca agtcattact
3961 gccacttgta attgcactta cagtgtgtgt agttagcatt ataacaatat tgtgcatatc
4021 agagttcttg gtgtacacaa acgttttagt actaacatta attttatatg tacttttgtg
4081 gcttttacta acaactccct tgcaattcta tttactaacc ctgtctcttt gctttcttcc
4141 tgcgttgtgt gtacaccaat atattttaca aacacaagaa taa

104..556 gene="E6"
atggaaa gtgcaaatgc
121 ctccacgcct gcaaaaacta tagaccagtt gtgcaaggag tgcaaccttt ctatgcacag
181 cttgcaaatt ctatgcgtgt tctgcaggaa aaccctgtcc acggcagagg tttatgcatt
241 tcagtataag agtttatata tagtgtggcg aggacagttt ccatttgcgg cttgtgcatg
301 ctgcttagaa atacaaggaa agattaacca gtttaggcat tttgacttcg cgggatttgc
361 tgtaacagtt gaagaagaca caaagcagtc aattttggat gtgctaattc gctgctattt
421 atgccacaaa ccattgtgtg aagtggagaa actaagacat attttgcaga aggcacgatt
481 tattaaatta aacagcagtt ggaaaggccg ctgttttcat tgctggtcat catgcatgga
541 aaatatccta ccttaa

532..837 gene="E7"
atgcatgga
541 aaatatccta ccttaaaaga cattgtttta gagctgactc ctgaccctgt aggtctacat
601 tgcaatgagc aattagacag ctcagaagac gaggtggacg aacaagccac gcaagccacg
661 caagccacgc aacatagcac actattacaa tgctaccaaa tactaacgtc ctgtagtaaa
721 tgttgtagca acgtccggct ggtggtggag tgtacaggac ctgacattca cgacctacac
781 gacctactgc tgggcacgct gaatatagtg tgccctttgt gtgcaccaaa aagctaa

Fig. 3 (cont.)

Homo sapiens erythropoietin (EPO), mRNA.

ACCESSION NM_000799

VERSION NM_000799.1 GI:4503588

1 cccggagccg gaccggggcc accgcgcccg ctctgctccg acaccgcgcc ccctggacag
61 ccgccctctc ctccaggccc gtggggctgg ccctgcaccg ccgagcttcc cgggatgagg
121 gccccggtg tggtcacccg gcgcgcccca ggtcgctgag ggaccccggc caggcgcgga
181 gatgggggtg cacgaatgtc ctgcctggct gtggcttctc ctgtccctgc tgtcgctccc
241 tctgggcctc ccagtcctgg gcgccccacc acgcctcatc tgtgacagcc gagtcctgga
301 gaggtacctc ttggaggcca aggaggccga gaatatcacg acgggctgtg ctgaacactg
361 cagcttgaat gagaatatca ctgtcccaga caccaaagtt aatttctatg cctggaagag
421 gatggaggtc gggcagcagg ccgtagaagt ctggcagggc ctggccctgc tgtcggaagc
481 tgtcctgcgg ggccaggccc tgttggtcaa ctcttcccag ccgtgggagc ccctgcagct
541 gcatgtggat aaagccgtca gtggccttcg cagcctcacc actctgcttc gggctctgcg
601 agcccagaag gaagccatct cccctccaga tgcggcctca gctgctccac tccgaacaat
661 cactgctgac actttccgca aactcttccg agtctactcc aatttcctcc ggggaaagct
721 gaagctgtac acaggggagg cctgcaggac aggggacaga tgaccaggtg tgtccacctg
781 ggcatatcca ccacctccct caccaacatt gcttgtgcca caccctcccc cgccactcct
841 gaaccccgtc gaggggctct cagctcagcg ccagcctgtc ccatggacac tccagtgcca
901 gcaatgacat ctcaggggcc agaggaactg tccagagagc aactctgaga tctaaggatg
961 tcacagggcc aacttgaggg cccagagcag gaagcattca gagagcagct ttaaactcag
1021 ggacagagcc atgctgggaa gacgcctgag ctcactcggc accctgcaaa atttgatgcc
1081 aggacacgct ttggaggcga tttacctgtt ttcgcaccta ccatcaggga caggatgacc
1141 tggagaactt aggtggcaag ctgtgacttc tccaggtctc acgggcatgg gcactccctt
1201 ggtggcaaga gccccttga caccggggtg gtgggaacca tgaagacagg atgggggctg
1261 gcctctggct ctcatggggt ccaagttttg tgtattcttc aacctcattg acaagaactg
1321 aaaccaccaa aaaaaaaaaa aa

Mus musculus FMS-like tyrosine kinase 3 ligand (Flt3l), mRNA.

ACCESSION NM_013520

VERSION NM_013520.2 GI:31982427

1 gaattcgcgg ccgcgtcgac attctgggga cgtcggtcgg ggttcttaga agaggagatg
61 acttttcaca gtcactgagg ctcgtgcagg aagcctgggg gagcaggagg cggaaaccga
121 cccacatcaa gggcggcagg gccgggcggc ggggtacagg ggttgggggg gaaggggctg
181 cagggtatga gcccgagacc tgccctcctg tcacttccaa gaacctgtca caggcatgag
241 gggtccccgg cagagatgac agtgctggcg ccagcctgga gcccaaattc ctccctgttg
301 ctgctgttgc tgctgctgag tccttgcctg cgggggacac ctgactgtta cttcagccac
361 agtcccatct cctccaactt caaagtgaag tttagagagt tgactgacca cctgcttaaa
421 gattacccag tcactgtggc cgtcaatctt caggacgaga agcactgcaa ggccttgtgg
481 agcctcttcc tagcccagcg ctggatagag caactgaaga ctgtggcagg gtctaagatg

Fig. 3 (cont.)

541 caaacgcttc tggaggacgt caacaccgag atacattttg tcacctcatg taccttccag
601 cccctaccag aatgtctgcg attcgtccag accaacatct cccacctcct gaaggacacc
661 tgcacacagc tgcttggtct gaagccctgt atcgggaagg cctgccagaa tttctctcgg
721 tgcctggagg tgcagtgcca gccggactcc tccaccctgc tgcccccaag gagtcccata
781 gccctagaag ccacggagct cccagagcct cggcccaggc agctgttgct cctgctgctg
841 ctgctgctgc ctctcacact ggtgctgctg gcagccgcct ggggccttcg ctggcaaagg
901 gcaagaagga ggggggagct ccaccctggg gtgcccctcc cctcccatcc ctaggatgcg
961 agccttgtgc atcgttgact cagccagggt cttatctcga tgaggtctca atatgttgcc
1021 caaactgact ttgaaaacct cgatgcacct tcctgcccca caaacttcca aacagctggg
1081 cttacgggca tgctatatac aacaaggctt tcttttcttc tttcttggtg ctagagttgg
1141 gaaccaaaac aa

Homo sapiens macrophage colony-stimulating factor (M-CSF1) cDNA to mRNA, complete cds.

ACCESSION M27087

VERSION M27087.1 GI:508985

1 agccgctctc cgcatcccag gacagcggtg cggccctcgg ccggggcgcc cactccgcag
61 cacccagcga gcgagcgagc gagcgagggc ggccgacgcg cccggccggg acccagctgc
121 ccgtatgacc gcgccgggcg ccgccgggcg ctgccctccc acgacatggc tgggctccct
181 gctgttgttg gtctgtctcc tggcgagcag gagtatcacc gaggaggtgt cggagtactg
241 tagccacatg attgggagtg gacacctgca gtctctgcag cggctgattg acagtcagat
301 ggagacctcg tgccaaatta catttgagtt tgtagaccag gaacagttga aagatccagt
361 gtgctacctt aagaaggcat ttctcctggt acaagacata atggaggaca ccatgcgctt
421 cagagataac acccccaatg ccatcgccat tgtgcagctg caggaactct ctttgaggct
481 gaagagctgc ttcaccaagg attatgaaga gcatgacaag gcctgcgtcc gaactttcta
541 tgagacacct ctccagttgc tggagaaggt caagaatgtc tttaatgaaa caaagaatct
601 ccttgacaag gactggaata ttttcagcaa gaactgcaac aacagctttg ctgaatgctc
661 cagccaagat gtggtgacca agcctgattg caactgcctg taccccaaag ccatccctag
721 cagtgacccg gcctctgtct cccctcatca gcccctcgcc ccctccatgg cccctgtggc
781 tggcttgacc tgggaggact ctgagggaac tgagggcagc tccctcttgc ctggtgagca
841 gcccctgcac acagtggatc caggcagtgc caagcagcgg ccacccagga gcacctgcca
901 gagctttgag ccgccagaga ccccagttgt caaggacagc accatcggtg gctcaccaca
961 gcctcgcccc tctgtcgggg ccttcaaccc cgggatggag gatattcttg actctgcaat
1021 gggcactaat tgggtcccag aagaagcctc tggagaggcc agtgagattc ccgtacccca
1081 agggacagag ctttcccct ccaggccagg agggggcagc atgcagacag agcccgccag
1141 acccagcaac ttcctctcag catcttctcc actccctgca tcagcaaagg gccaacagcc
1201 ggcagatgta actggtaccg ccttgcccag ggtgggcccc gtgaggccca ctggccagga
1261 ctggaatcac acccccaga agacagacca tccatctgcc ctgctcagag acccccggga
1321 gccaggctct cccaggatct catcaccgcg cccccagggc ctcagcaacc cctccaccct

Fig. 3 (cont.)

1381 ctctgctcag ccacagcttt ccagaagcca ctcctcgggc agcgtgctgc cccttgggga
1441 gctggagggc aggaggagca ccagggatcg gaggagcccc gcagagccag aaggaggacc
1501 agcaagtgaa ggggcagcca ggcccctgcc ccgttttaac tccgttcctt tgactgacac
1561 acatgagagg cagtccgagg gatcctccag cccgcagctc caggagtctg tcttccacct
1621 gctggtgccc agtgtcatcc tggtcttgct ggccgtcgga ggcctcttgt tctacaggtg
1681 gaggcggcgg agccatcaag agcctcagag agcggattct cccttggagc aaccagaggg
1741 cagccccctc actcaggatg acagacaggt ggaactgcca gtgtagaggg aattctaaga
1801 cccctcacca tcctggacac tctcgtttgt caatgtccct ctgaaaatgt gacgcccagc
1861 cccggacaca gtactccaga tgttgtctga ccagctcaga gagagtacag tgggactgtt
1921 accttccttg atatggacag tattcttcta tttgtgcaga ttaagattgc attagttttt
1981 ttcttaacaa ctgcatcata ctgttgtcat atgttgagcc tgtggtctat aaaaccccta
2041 gttccatttc ccataaactt ctgtcaagcc agaccatctc taccctgtac ttggacaact
2101 taacttttt aaccaaagtg cagtttatgt tcacctttgt taaagccacc ttgtggtttc
2161 tgcccatcac ctgaacctac tgaagttgtg tgaaatccta attctgtcat ctccgtagcc
2221 ctcccagttg tgcctcctgc acattgatga gtgcctgctg ttgtctttgc ccatgttgtt
2281 gatgtagctg tgaccctatt gttcctcacc cctgcccccc gccaacccca gctggcccac
2341 ctcttccccc tcccacccaa gcccacagcc agcccatcag gaagccttcc tggcttctcc
2401 acaaccttct gactgtcttt tcagtcatgc cccctgctct tttgtatttg gctaatagta
2461 tatcaatttg cactt

cDNA encoding Granulocyte-Colony stimulating factor.
ACCESSION E08531
VERSION E08531.1 GI:2176646
1 cggagcctgc agcccagccc cacccagacc catggctgga cctgccaccc agagccccat
61 gaagctgatg gccctgcagc tgctgctgtg gcacagtgca ctctggacag tgcaggaagc
121 caccccccctg ggccctgcca gctccctgcc ccagagcttc ctgctcaagt gcttagagca
181 agtgaggaag atccagggcg atggcgcagc gctccaggag aagctggtga gtgagtgtgc
241 cacctacaag ctgtgccacc ccgaggagct ggtgctgctc ggacactctc tgggcatccc
301 ctgggctccc ctgagcagct gccccagcca ggccctgcag ctggcaggct gcttgagcca
361 actccatagc ggccttttcc tctaccaggg gctcctgcag gccctggaag ggatctcccc
421 cgagttgggt cccaccttgg acacactgca gctggacgtc gccgactttg ccaccaccat
481 ctggcagcag atggaagaac tgggaatggc ccctgccctg cagcccaccc agggtgccat
541 gccggccttc gcctctgctt tccagcgccg ggcaggaggg gtcctggttg cctcccatct
601 gcagagcttc ctggaggtgt cgtaccgcgt tctacgccac cttgcccagc cctgagccaa
661 gccctcccca tcccatgtat ttatctctat ttaatattta tgtctattta agcctcatat
721 ttaaagacag ggaagagcag aacggagccc caggcctctg tgtccttccc tgcatttctg
781 agtttcattc tcctgcctgt agcagtgaga aaaagctcct gtcctcccat cccctggact
841 gggaggtaga taggtaaata ccaagtattt attactatga ctgctcccca gccctggctc
901 tgcaatgggc actgggatga gccgctgtga gcccctggtc ctgagggtcc ccacctggga

Fig. 3 (cont.)

961 cccttgagag tatcaggtct cccacgtggg agacaagaaa tccctgttta atatttaaac
1021 agcagtgttc cccatctggg tccttgcacc cctcactctg gcctcagccg actgcacagc
1081 ggcccctgca tcccccttggc tgtgaggccc ctggacaagc agaggtggcc agagctggga
1141 ggcatggccc tggggtccca cgaatttgct ggggaatctc gtttttcttc ttaagacttt
1201 tgggacatgg tttgactccc gaacatcacc gacgcgtctc ctgtttttct gggtggcctc
1261 gggacacctg ccctgccccc acgagggtca ggactgtgac tcttttagg gccaggcagg
1321 tgcctggaca tttgccttgc tggacgggga ctggggatgt gggagggagc agacaggagg
1381 aatcatgtca ggcctgtgtg tgaaaggaag ctccactgtc accctccacc tcttcacccc
1441 ccactcacca gtgtcccctc cactgtcaca ttgtaactga acttcaggat aataaagtgt
1501 ttgcctccaa aaaaaaaaaa aaaaaaaaaa a

Granulocyte-Colony stimulating factor gene.
ACCESSION E08530
VERSION E08530.1 GI:2176645
1 ctgccgcttc caggcgtcta tcagcggctc agcctttgtt cagctgttct gttcaaacac
61 tctggggcca ttcaggcctg ggtggggcag cgggaggaag ggagtttgag gggggcaagg
121 cgacgtcaaa ggaggatcag agattccaca atttcacaaa actttcgcaa acagcttttt
181 gttccaaccc ccctgcattg tcttggacac caaatttgca taaatcctgg gaagttatta
241 ctaagcctta gtcgtggccc caggtaattt cctcccaggc ctccatgggg ttatgtataa
301 agggcccccc agagctgggc cccaaaacag cccggagcct gcagcccagc cccacccaga
361 cccatggctg gacctgccac ccagagcccc atgaagctga tgggtgagtg tcttggccca
421 ggatgggaga gccgcctgcc ctggcatggg agggaggctg gtgtgacaga ggggctgggg
481 atccccgttc tgggaatggg gattaaaggc acccagtgtc cccgagaggg cctcaggtgg
541 tagggaacag catgtctcct gagcccgctc tgtccccagc cctgcagctg ctgctgtggc
601 acagtgcact ctggacagtg caggaagcca ccccccctggg ccctgccagc tccctgcccc
661 agagcttcct gctcaagtgc ttagagcaag tgaggaagat ccagggcgat ggcgcagcgc
721 tccaggagaa gctggtgagt gaggtgggtg agagggctgt ggagggaagc ccggtgggga
781 gagctaaggg ggatggaact gcagggccaa catcctctgg aagggacatg ggagaatatt
841 aggagcagtg gagctgggga aggctgggaa gggacttggg gaggaggacc ttggtgggga
901 cagtgctcgg gagggctggc tgggatggga gtggaggcat cacattcagg agaaagggca
961 agggcccctg tgagatcaga gagtgggggt gcagggcaga gaggaactga acagcctggc
1021 aggacatgga gggaggggaa agaccagaga gtcggggagg acccgggaag gagcggcgac
1081 ccggccacgg cgagtctcac tcagcatcct tccatcccca gtgtgccacc tacaagctgt
1141 gccaccccga ggagctggtg ctgctcggac actctctggg catcccctgg gctcccctga
1201 gcagctgccc cagccaggcc ctgcagctgg tgagtgtcag gaaaggataa ggctaatgag
1261 gaggggggaag gagaggagga acacccatgg gctcccccat gtctccaggt tccaagctgg
1321 gggcctgacg tatctcaggc agcacccccct aactcttccg ctctgtctca caggcaggct
1381 gcttgagcca actccatagc ggccttttcc tctaccaggg gctcctgcag gccctggaag
1441 ggatctcccc cgagttgggt cccaccttgg acacactgca gctggacgtc gccgactttg

Fig. 3 (cont.)

1501 ccaccaccat ctggcagcag gtgagccttg ttgggcaggg tggccaaggt cgtgctggca
1561 ttctgggcac cacagccggg cctgtgtatg ggccctgtcc atgctgtcag cccccagcat
1621 ttcctcattt gtaataacgc ccactcagaa gggcccaacc actgatcaca gctttccccc
1681 acagatggaa gaactgggaa tggcccctgc cctgcagccc acccagggtg ccatgccggc
1741 cttcgcctct gctttccagc gccgggcagg aggggtcctg gttgcctccc atctgcagag
1801 cttcctggag gtgtcgtacc gcgttctacg ccaccttgcc cagccctgag ccaagccctc
1861 cccatcccat gtatttatct ctatttaata tttatgtcta tttaagcctc atatttaaag
1921 acagggaaga gcagaacgga gccccaggcc tctgtgtcct tccctgcatt tctgagtttc
1981 attctcctgc ctgtagcagt gagaaaaagc tcctgtcctc ccatcccctg gactgggagg
2041 tagataggta aataccaagt atttattact atgactgctc cccagccctg gctctgcaat
2101 gggcactggg atgagccgct gtgagcccct ggtcctgagg gtccccacct gggacccttg
2161 agagtatcag gtctcccacg tgggagacaa gaaatccctg tttaatattt aaacagcagt
2221 gttccccatc tgggtccttg cacccctcac tctggcctca gccgactgca cagcggcccc
2281 tgcatcccct tggctgtgag gcccctggac aagcagaggt ggccagagct gggaggcatg
2341 gccctggggt cccacgaatt tgctggggaa tctcgttttt cttcttaaga cttttgggac
2401 atggtttgac tcccgaacat caccgacgtg tctcctgttt ttctgggtgg cctcgggaca
2461 cctgccctgc ccccacgagg gtcaggactg tgactctttt tagggccagg caggtgcctg
2521 gacatttgcc ttgctggatg gggactgggg atgtgggagg gagcagacag gaggaatcat
2581 gtcaggcctg tgtgtgaaag gaagctccac tgtcaccctc cacctcttca cccccactc
2641 accagtgtcc cctccactgt cacattgtaa ctgaacttca ggataataaa gtgtttgcct
2701 ccagtcacgt ccttcctcct tcttgagtcc agctggtgcc tggccagggg ctggggaggt
2761 ggctgaaggg tgggagaggc cagagggagg tcggggagga ggtctgggga ggaggtccag
2821 ggaggaggag gaaagttctc aagttcgtct gacattcatt ccgttagcac atatttatct
2881 gagcacctac tctgtgcaga cgctgggcta agtgctgggg acacagcagg gaacaaggca
2941 gacatggaat ctgcactcga

Homo sapiens MCP1 (MCP1) gene, promoter region and partial cds.

ACCESSION AY357296

VERSION AY357296.1 GI:34559719

1 ccgagatgtt cccagcacag ccccatgtga gagctccctg gctccgggcc cagtatctgg
61 aatgcaggct ccagccaaat gcattctctt ctacgggatc tgggaacttc caaagctgcc
121 tcctcagagt gggaatttcc actcacttct ctcacgccag cactgacctc ccagcggggg
181 agggcatctt ttcttgacag agcagaagtg ggaggcagac agctgtcact ttccagaaga
241 ctttcttttc tgattcatac ccttcacctt ccctgtgttt actgtctgat atatgcaaag
301 gccaagtcac tttccagaga tgacaactcc ttcctgaagt agagacatgc ttccaacact
361 cagaagccta tgtgaacact cagccagcaa agctgggaag tttttctctg tgaccatggg
421 ctaattggtc tccttctctg gattgtggct ttatcagata aaaacaagtg gtcatgccac
481 aggatgtcta taagcccatt gattctggga ttctatgagt gatgctgata tgactaagcc
541 aggagagact tatttaaaga tctcagcatc tttcagcttg ttaacctaga gaaaacccga

Fig. 3 (cont.)

601 agcatgactg gattataaag ggaaattgaa tgcggtccac caagttcatg gtaaaggatg
661 cactaacaga ttagagagag gtttcccctg atatgaggaa aacttcttgg aagatgaggt
721 gagatggcct aggaagaaat tcctacacaa aattgcacag tctctagtcc tggaaacatt
781 ttattcattg gataagaatg gattgaggca tgagcagagg actgagacaa acacagagaa
841 gtttcaacac tggttgggga gaaaaggagt aactagtgag attcaggcag aacaagaata
901 aggctcctca agaggcacaa gcaaagcagg gctcgagttg atttgttctc tcttcatcct
961 gctttttgta attccaccag agtctgaaat gaccactcca tagagtctct gctctgggat
1021 tctccaggaa accaatatcc atcatgagac atcaagtcta gtcccaggaa gaagagattc
1081 tggaatggaa acatcctggg tgggagtctc agcacatcta ctattctgtc tgagttactg
1141 gacaaataac ttcagtttta acctaacgaa agctgggttg gttggaggac tgggcaggca
1201 gcgctggaaa gtatgtcagc accatacctg actccctgaa tgcactcaac aatgccatta
1261 ctgaccactt actagaaata aaacagtcat ttgttgaata caacccgttt ctttttacaa
1321 gtgtagtgaa aagtgttttc tttcaagaaa ccccatgcat ttatagacat tgcctcagtg
1381 acccttttatg aaagaagtca ctagtctttg tatgcccatt gggcaagggc accgcaaggc
1441 tcagaaggag gaggcagtgg gctaggagaa tggagagatc agaattttaa actcagccca
1501 gccattaaca tgcctcaagt actcctatca tatttgtaag agacaacagt tcactgaaat
1561 gaattctaag gtctttgggt ttttatcagt gtgcttctgt agtttctgag gaaatctaag
1621 gcacaactga ggaatgaagt caggctttcc aattcccgaa atactcctcc actgcttact
1681 catgtccctt ggaaattaag aaggaagcca ggagaatagc tgccataacc agggatgaac
1741 ttcttgtcca ctgctgcctg ctatgctagc aacagcctcc taactcataa tgacttagcc
1801 atgaggaatg tttctagatt ctcctttagc tgtctgccca tttggaagat gctgaggaca
1861 gagagaggac ccaagcaggc aactagttgg aggacttgta cacgtttcct tccagcagta
1921 tgtcagagag gtgagcagcc cactggggac agggctgcct gggttctgtg ctcgagggga
1981 ccttgagcag gctatttaac ccttctgtgc ctcagttgcc tgatctataa catgaaaatt
2041 agcaatccct actagataaa gttggggaat ttacagagtt aatatttgta aaggtctgag
2101 aatattcctg gcagagtaag cactctgtga gtatgacact ggcatttctt ctgcagcact
2161 acatgctgtc tatgcctttg tccaagtctg aaaccctaga actcttagaa ttcagttcaa
2221 tgtttacaca atcctacagt tctgctaggc ttctatgatg ctactattct gcatttgaat
2281 gagcaaatgg atttaatgca ttgtcaggga gccggccaaa gcttgagagc tccttcctgg
2341 ctgggaggcc ccttggaatg tggcctgaag gtaagctggc agcgagcctg acatgctttc
2401 atctagtttc ctcgcttcct tccttttctg cagttttcgc ttcacagaaa gcagaatcct
2461 taaaaataac cctcttagtt cacatctgtg gtcagtctgg gcttaatggc accccatcct
2521 ccccatttgc tcatttggtc tcagcagtga atggaaaaag tgtctcgtcc tgacccccctg
2581 cttccctttc ctacttcctg gaaatccaca ggatgctgca tttgctcagc agatttaaca
2641 gcccacttat cactcatgga agatccctcc tcctgcttga ctccgccctc tctccctctg
2701 cccgctttca ataagaggca gagacagcag ccagaggaac cgagaggctg agactaaccc
2761 agaaacatcc aattctcaaa ctgaagctcg cactctcgcc tccagcatga aagtctctgc
2821 cgcccttctg tgcctgctgc tcatagcagc caccttcatt ccccaagggc tcgctcagcc
2881 aggtaaggcc ccctcttctt ctccttgaac cacattgtct tctctctgag ttatcatgga

Fig. 3 (cont.)

2941 ccatccaagc agacgtggta cccacagtct tgctttaacg ctacttttcc aagataaggt
3001 gactcagaaa aggacaaggg gtgagcccaa ccacacagct gctgctcggc agagcctgaa
3061 ctagaattcc agctgtgaac cccaaatcca gctccttcca ggattccagc tctgggaaca
3121 cactcagcgc agttactccc ccagctgctt ccagcagagt ttggggatca gggtaatcaa
3181 agagagggtg ggtgtgtagg ctgtttccag acacgctgga g

Homo sapiens macrophage migration inhibitory factor
(glycosylation-inhibiting factor) (MIF), mRNA.
1 accacagtgg tgtccgagaa gtcaggcacg tagctcagcg gcggccgcgg cgcgtgcgtc
61 tgtgcctctg cgcgggtctc ctggtccttc tgccatcatg ccgatgttca tcgtaaacac
121 caacgtgccc cgcgcctccg tgccggacgg gttcctctcc gagctcaccc agcagctggc
181 gcaggccacc ggcaagcccc cccagtacat cgcggtgcac gtggtcccgg accagctcat
241 ggccttcggc ggctccagcg agccgtgcgc gctctgcagc ctgcacagca tcggcaagat
301 cggcggcgcg cagaaccgct cctacagcaa gctgctgtgc ggcctgctgg ccgagcgcct
361 gcgcatcagc ccggacaggg tctacatcaa ctattacgac atgaacgcgg ccaatgtggg
421 ctggaacaac tccaccttcg cctaagagcc gcagggaccc acgctgtctg cgctggctcc
481 acccgggaac ccgccgcacg ctgtgttcta ggcccgccca ccccaacctt ctggtgggga
541 gaaataaacg gtttagagac t

Homo sapiens macrophage inflammatory protein-1-alpha/RANTES
receptor mRNA, complete cds.
ACCESSION L10918
VERSION L10918.1 GI:292416
1 ggcacgagcc cagaaacaaa gacttcacgg acaaagtccc ttggaaccag agagaagccg
61 ggatggaaac tccaaacacc acagaggact atgacacgac cacagagttt gactatgggg
121 atgcaactcc gtgccagaag gtgaacgaga gggcctttgg ggcccaactg ctgcccctc
181 tgtactcctt ggtatttgtc attggcctgg ttggaaacat cctggtggtc ctggtccttg
241 tgcaatacaa gaggctaaaa aacatgacca gcatctacct cctgaacctg gccatttctg
301 acctgctctt cctgttcacg cttcccttct ggatcgacta caagttgaag gatgactggg
361 tttttggtga tgccatgtgt aagatcctct ctgggtttta ttacacaggc ttgtacagcg
421 agatcttttt catcatcctg ctgacgattg acaggtacct ggccatcgtc cacgccgtgt
481 ttgccttgcg ggcacggacc gtcacttttg gtgtcatcac cagcatcatc atttgggccc
541 tggccatctt ggcttccatg ccaggcttat acttttccaa gacccaatgg gaattcactc
601 accacacctg cagccttcac tttcctcacg aaagcctacg agagtggaag ctgtttcagg
661 ctctgaaact gaacctcttt gggctggtat tgcctttgtt ggtcatgatc atctgctaca
721 cagggattat aaagattctg ctaagacgac caaatgagaa gaaatccaaa gctgtccgtt
781 tgatttttgt catcatgatc atctttttc tcttttggac cccctacaat ttgactatac
841 ttatttctgt tttccaagac ttcctgttca cccatgagtg tgagcagagc agacatttgg
901 acctggctgt gcaagtgacg gaggtgatcg cctacacgca ctgctgtgtc aacccagtga
961 tctacgcctt cgttggtgag aggttccgga agtacctgcg gcagttgttc cacaggcgtg

Fig. 3 (cont.)

1021 tggctgtgca cctggttaaa tggctcccct tcctctccgt ggacaggctg gagagggtca
1081 gctccacatc tccctccaca ggggagcatg aactctctgc tgggttctga ctcagaccat
1141 aggaggccaa cccaaaataa gcaggcgtga cctgccaggc acactgagcc agcagcctgg
1201 ctctcccagc caggttctga ctcttggcac agcatggagt cacagccact tgggatagag
1261 agggaatgta atggtggcct ggggcttctg aggcttctgg ggcttcagtc ttttccatga
1321 acttctcccc tggtagaaag aagatgaatg agcaaaacca aatattccag agactgggac
1381 taagtgtacc agagaagggc ttggactcaa gcaagatttc agatttgtga ccattagcat
1441 ttgtcaacaa agtcacccac ttcccactat tgcttgcaca aaccaattaa acccagtagt
1501 ggtgactgtg ggctccattc aaagtgagct cctaagccat gggagacact gatgtatgag
1561 gaatttctgt tcttccatca cctccccccc cccgccaccc tcccactgcc aagaacttgg
1621 aaatagtgat ttccacagtg actccactct gagtcccaga gccaatcagt agccagcatc
1681 tgcctcccct tcactcccac cgcaggattt gggctcttgg aatcctgggg aacatagaac
1741 tcatgacgga agagttgaga cctaacgaga aatagaaatg ggggaactac tgctggcagt
1801 ggaactaaga aagcccttag gaagaatttt tatatccact aaaatcaaac aattcaggga
1861 gtgggctaag cacgggccat atgaataaca tggtgtgctt cttaaaatag ccataaaggg
1921 gagggactca tcatttccat ttacccttct tttctgacta tttttcagaa tctctcttct
1981 tttcaagttg ggtgatatgt tggtagattc taatggcttt attgcagcga ttaataacag
2041 gcaaaaggaa gcagggttgg tttcccttct ttttgttctt catctaagcc ttctggtttt
2101 atgggtcaga gttccgactg ccatcttgga cttgtcagca aaaaaaaaaa aaaaaa

Mouse macrophage inflammatory protein 1-beta (MIP-1) mRNA, complete cds.

ACCESSION M35590

VERSION M35590.1 GI:199696

1 gcttctgaag cttctgggcc ctgcagtccc agctctgtgc aaacctaacc ccgagcaaca
61 ccatgaagct ctgcgtgtct gccctctctc tcctcttgct cgtggctgcc ttctgtgctc
121 cagggttctc agcaccaatg ggctctgacc ctcccacttc ctgctgtttc tcttacacct
181 cccggcagct tcacagaagc tttgtgatgg attactatga gaccagcagt ctttgctcca
241 agccagctgt ggtattcctg accaaaagag gcagacagat ctgtgctaac cccagtgagc
301 cctgggtcac tgagtacatg agtgacttgg agttgaactg agcagctcca gcggcagggc
361 aggaggagcc acttcaggag aggcctcctc agccctgatg cttctcactg agaagcgtcc
421 ttgctcctca cgttcagatt tcctgcccct cttcttaatt taaatctctg tgtagacttt
481 gttttgtttt tttgggggag tattatttct attatttatg ttttagttat aggacgcgtg
541 tctcccatgg agatggtcca ccattgctgt ttctctgcta ttgtggatat gactgtgaaa
601 ttgatttcat gcattttcat aataaatctt tctttaag

Human macrophage inflammatory protein 3 alpha (MIP-3a) mRNA, complete cds.

ACCESSION U77035

VERSION U77035.1 GI:1790924

Fig. 3 (cont.)

1 atgtgctgta ccaagagttt gctcctggct gctttgatgt cagtgctgct actccacctc
61 tgcggcgaat cagaagcagc aagcaacttt gactgctgtc ttggatacac agaccgtatt
121 cttcatccta aatttattgt gggcttcaca cggcagctgg ccaatgaagg ctgtgacatc
181 aatgctatca tctttcacac aaagaaaaag ttgtctgtgt gcgcaaatcc aaaacagact
241 tgggtgaaat atattgtgcg tctcctcagt aaaaaagtca agaacatgta aaaactgtgg
301 cttttctgga atggaattgg acatagccca agaacagaaa gaaccttgct ggggttggag
361 gtttcacttg cacatcatgg agggtttagt gcttatctaa tttgtgcctc actggacttg
421 tccaattaat gaagttgatt catattgcat catagtttgc tttgtttaag catcacatta
481 aagttaaact gtattttatg ttatttatag ctgtaggttt tctgtgttta gctatttaat
541 actaattttc cataagctat tttggtttag tgcaaagtat aaaattatat ttgggggga
601 ataagattat atggactttt ttgcaagcaa caagctattt tttaaaamma actatttaac
661 attcttttgt ttatattgtt ttgtctccta aattgttgta attgcattat aaaataagaa
721 aaatattaat aagacaaata ttgaaaataa agaaacaaaa agtt

Human macrophage inflammatory protein 3 beta (MIP-3beta) mRNA,
complete cds.
ACCESSION U77180
1 atggccctgc tactggccct cagcctgctg gttctctgga cttccccagc cccaactctg
61 agtggcacca atgatgctga agactgctgc ctgtctgtga cccagaaacc catccctggg
121 tacatcgtga ggaacttcca ctaccttctc atcaaggatg gctgcagggt gcctgctgta
181 gtgttcacca cactgagggg ccgccagctc tgtgcacccc cagaccagcc ctgggtagaa
241 cgcatcatcc agagactgca gaggacctca gccaagatga agcgccgcag cagttaacct
301 atgaccgtgc agagggagcc cggagtccga gtcaagcatt gtgaattatt acctaacctg
361 gggaaccgag gaccagaagg aaggaccagg cttccagctc ctctgcacca gacctgacca
421 gccaggacag ggcctggggt gtgtgtgagt gtgagtgtga gcgagagggt gagtgtggtc
481 tagagtaaag ctgctccacc cccagattgc aatgctacca ataaagccgc ctggtgttta
541 caact

H.sapiens gene for chemokine HCC-1.
ACCESSION Z49269
VERSION Z49269.1 GI:1004266
1 gagctccgtt gggagtccca tgtttcttta tggcataatg ggtgagaaca cagacttgga
61 agccaaacca cctgaatttg aaccccagtt ccatttacca actgtcaaaa gcttaggctt
121 tgattctaag cctgtttcct caactgctgt tctaaagatt aaataggcta atattcataa
181 ggcaactggg acagtggctt gtgtgtatag caaccattat ataagtgaat tatctactga
241 gcaccacagc acttcttcac tccatggtgt ggtgaccaga atggagatga gacagagaac
301 tgcaggttct gcttcgagtt taagttagga tttcccttga ccaatgagac ctgacttgga

Fig. 3 (cont.)

361 ggagtcctgg cctcattcca ttaccccaaa caccctctag tctctagatg aacagatcct
421 gaatgtccag gccccacgtg gcctgttcta aggcctgaga tggaattgga tacaggacac
481 atccagcctt gagatctttt gctaagtgtg acacagtgcc cccagccctg tgctcatgtt
541 catgcctagg gaaaggcttc tatcaaaaga gttgaacttc ttcccactgg ggatggaaga
601 ccatttcctc ccttaaacct tggctctccc tgcttccttc aggccaccaa caacacatgt
661 gcaggatatg aaattgctga ggcatcactg ctttcctact tcccttccaa gtctcagctc
721 ccttatttta aaaaatattt ggcctcaatg atcatttctc aacaattcct caccgcagga
781 gcctctgaag ctcccaccag gccagctctc ctcccacaac agcttcccac agcatgaaga
841 tctccgtggc tgccattccc ttcttcctcc tcatcaccat cgccctaggg accaagactg
901 aatcctcctc acgtgagtgc aatgccttgt cttccttcca acctagagcc tgcagggaaa
961 taagcaggag tgaggttggg gctcagggga agaccaggag cagggactca gaaaggaggg
1021 ctggtatctt cttgaaattg tgtgtatagc aacattatat aaatgaatta tctactgagc
1081 accacagcac ttcaccccat ggtgtggtga gcaggatgga gatgagactt aggactgtag
1141 gttctgctta agagtttaag ttgggatctt ccagccttga ccaatgagac ttgacttggg
1201 agactccagg cttcattcca ctaccccaaa tgccctctag tctccaaata aacagatcct
1261 gaatctccag gcctcacatg gccttgatct cttatcattg ccccccagga ccagtccccc
1321 cttgccctca aggacatgga gtgagaccag cctgcctctc tactccctca atttctctct
1381 ctttgccgct aagcaaaaga gtggcccacc ccatttgggg tatatttcct cagggagatt
1441 aggagcagtg tcttgagccc ctcaagggca tttttctatt ggcctcctga ggtttgggcc
1501 cagcctgctt ccagcgtcac ctgtgcccag tgagtgcagc attgcttggg tatgggctgg
1561 ggggaaacac gacagtgtgg ggtccatcct aggccccctt ttctcagctg atttcttaga
1621 ataagctgcc tttagagata accaaaacta tttatcactc ttccatttta cctactctcc
1681 ttttcagaaa ctgggggggaa accgaaggtt gttaaaatac agctaaagtt ggtgggtatg
1741 tgcacagttt gacttgccct ctccgatgtc atttgtcagc tcagaggaac aaggtgggag
1801 agtataggag ctctgactgg gtctcaggaa acaggggccc cttatgccgt tctttggatc
1861 gtgaggatgc tgcctggaat ggagctggaa aacaggatga gacccttcca cccagacatc
1921 tggccaccct cagtgacctc tgaggccatt gtgatgcaca tccatgattc tatgaagcag
1981 ggtcacataa catgcacaca cctgatttct ccactccata accacaacat gtgcctgttt
2041 gtacagggct cttggcctac aatgtccttc ctgctacctc tataattcaa gcttggggtg
2101 gctgctgtca ccttgcttct cctataaaag ccatgaaact tctcaatcag aaaatagatg
2161 aaaaaatcac ccaatccagt gatttttaaa acttttaga ccacaaaacc ttttcttcaa
2221 gcaatatctt ccacagaggc ccaatatgta aaacagaaaa aatgggttga gtagggtaca
2281 agacaccact ctcaaatgca gcaaggcctc cacaatagtc cctgaggccc ccagagctca
2341 gtgtaaaaac cactgatgca gtccaagggc ctcatttaca gaggagggaa caggggaaa
2401 gtaaaatggc cacagtacac aggaagcaca ggcaaggtta ggttaggatt tgggtgccct
2461 gactctgtgg cctttgtcct tggggcttgc tgtgggcatc ctgctctctc tgcaggttgt
2521 cggttcaatg gggacatggg cagggtggag cactaggagg ggctgggttt gcattcccaa
2581 atggcatgtc tccaaatccc tattgggatt tcttccaaat attcctccta tttggagcac
2641 ctttcccgaa taaggcatga aggctgcatg atattggcca agtccctagc cttctctgcc

Fig. 3 (cont.)

2701 agtcggcccc cagagatggt gtaagaagat ctgagtgtgc tgctcttcaa tcctggagtt
2761 gaaagtcatc caccagtctt tccaagaggg gttgaagaaa aggaggaagg gtgattgatg
2821 atgagggagg agaaaaagaa gagcccagga gtaccatgga gaaggagaag agaagatgag
2881 gaaagcctac tctcccctcc aagttctgag gggctgtctc ctccttcctt ccctcctcca
2941 tgccctcagc ttgcaggagc agccaatggt atggccttta acaaggggcc cctcctcagc
3001 atctgatgct ctctcctcag ggggacctta ccacccctca gagtgctgct tcacctacac
3061 tacctacaag atcccgcgtc agcggattat ggattactat gagaccaaca gccagtgctc
3121 caagcccgga attgtgtagg tggtacacac acatcacact ggggggagag ggagccagca
3181 gggcctcctg gagggaagca gggagtggtg gtggaatggg gacccccagc gtacctccca
3241 ggtgtgacta catggggaga ggcagctgag gggcaatctg agcgctttct ggctggagcc
3301 tgcaggagcc atggggaaac tgaccccatg gatggggaga tgacagagaa gggagaagaa
3361 ggcaagaggg cacttcctca gggggacaca gagactagat gggtctaggg gtcctaggaa
3421 ccgaagagta tgtctcagag aggagactgg ctctaagctg cctctgtgga agaaaggaaa
3481 agcagtatag gtcaggtggg gaatttagga gggagggaag atgggctgtc tcttccggcc
3541 actgggcccc tcggtttgtg atccttctcc ctcttgctcc acagcttcat caccaaaagg
3601 ggccattccg tctgtaccaa ccccagtgac aagtgggtcc aggactatat caaggacatg
3661 aaggagaact gagtgaccca gaaggggtgg cgaaggcaca gctcagagac ataaagagaa
3721 gatgccaagg ccccctcctc cacccaccgc taactctcag ccccagtcac cctcttggag
3781 cttccctgct ttgaattaaa gaccactcat gctcttccct ggcctcattc ctttctacgg
3841 gatttactca ttggccatgc actgaggaca ccagggtgtg gcaccctcgg catcaagcct
3901 cgctctgcag aagttttggt ggagcctggt acaaaaaata ggtcaggcct gcaatgcagg
3961 tagtgagaag cagaaagtga gaaagaaaag cagtgtaaag accgtctcct cctcagcagc
4021 aacagtagca gaccccg

H.sapiens mRNA for chemokine HCC-1.
ACCESSION Z49270
VERSION Z49270.1 GI:1004268
1 agcctctgaa gctcccacca ggccagctct cctcccacaa cagcttccca cagcatgaag
61 atctccgtgg ctgccattcc cttcttcctc ctcatcacca tcgccctagg gaccaagact
121 gaatcctcct cacggggacc ttaccacccc tcagagtgct gcttcaccta cactacctac
181 aagatcccgc gtcagcggat tatggattac tatgagacca acagccagtg ctccaagccc
241 ggaattgtct tcatcaccaa aaggggccat tccgtctgta ccaaccccag tgacaagtgg
301 gtccaggact atatcaagga catgaaggag aactgagtga cccagaaggg gtggcgaagg
361 cacagctcag agacataaag agaagatgcc aaggcccccc cctccaccca cccctaactc
421 tcagccccag tcaccctctt ggagcttccc tgctttgaat taaagaccac tcatgctctt
481 c

Human myeloid progenitor inhibitory factor-1 MPIF-2 mRNA, complete

Fig. 3 (cont.)

cds.
ACCESSION U85768
VERSION U85768.1 GI:1916251
1 atggcaggcc tgatgaccat agtaaccagc cttctgttcc ttggtgtctg tgcccaccac
61 atcatcccta cgggctctgt ggtcataccc tctccctgct gcatgttctt tgtttccaag
121 agaattcctg agaaccgagt ggtcagctac cagctgtcca gcaggagcac atgcctcaag
181 ggaggagtga tcttcaccac caagaagggc cagcagttct gtggcgaccc caagcaggag
241 tgggtccaga ggtacatgaa gaacctggac gccaagcaga agaaggcttc ccctagggcc
301 agggcagtgg ctgtcaaggg ccctgtccag agatatcctg gcaaccaaac cacctgctaa

Mus musculus mRNA for thymus and activation regulated chemokine
(TARC gene).
ACCESSION AJ242587
VERSION AJ242587.1 GI:5102777
1 gaagaccttc acctcagctt ttggtaccat gaggtcactt cagatgctgc tcctggctgc
61 tctgcttctg gggacttttc tgcagcatgc cagagctgct cgagccacca atgtaggccg
121 agagtgctgc ctggattact tcaaaggggc cattcctatc aggaagttgg tgagctggta
181 taagacctca gtggagtgtt ccagggatgc catcgtgttt ctgactgtcc agggcaagct
241 catctgtgca gaccccaaag acaaacatgt gaagaaggcc atcagattgg tgaaaaaccc
301 aaggccgtga ccttcccgct gaggcatttg gagacgccag ggctgctgtc catggtttca
361 acataaagcg gcctgtgacc agcagagccc aagagcagcc acagagcaga agtccctgtt
421 ccctttttta tggactctta tgcactacag gcgaacacaa aaaaaagcaa cggaataaag
481 ccttcctccc tc

Human line-1 reverse transcriptase gene, partial cds, and
granulocyte chemotactic protein-2 (GCP-2) gene, complete cds.
ACCESSION U83303
VERSION U83303.1 GI:1916228
1 aagaaagtca ttggtagctt gatggggatg gtattgaatc tataagttac cttgggcagt
61 atggccatat tcacgatatt gatttttcct acccatgagc atggaatatt cttccatttg
121 tttgtatcct cttttatttc attgagcagt ggtttgtagt tctccttgaa gaggtccttc
181 atgtcccttg taagttggat tcctaggtat tttattctct ttgaagcaat tgtgaatggg
241 agttcactca tgatttggct ctctgtttgt ttgttattgg tgtataagaa tgcttgtgat
301 ttttgtgcat tgattttgta tcctgagact ttgctgaagt tgcttatcag cttaaggaga
361 ttttgggctg agaccatggg gttttctaga tatacaatta tgtaatttgc aaatagggac
421 aatttgactt cctcttttcc taattgaata ccctttattt ccttctcctg cctaattgtc
481 ctggccattg gagaggagga gcatctccca gacagctgcg tgcctcagag aagccagcct

Fig. 3 (cont.)

541 cgctaacccc tcaagcccag gggatgagac cctcctgaat cgctgctcta ttttggctgg
601 agccacagct ccctccaccg cggggcgggg ctaaaatgtc ctccccctta agggagcagg
661 cagctcctcc cagccaccca ccccaccaat tcccatcctc ccgcccccct ccaccaaccc
721 cttctttcca cactgccccc tgagttcagg gaatttcccc agcatcccaa agcttgagtt
781 tcctgccagt cgggagggat gaatgcagat aaagggagtg cagaaggcac gaggaaacca
841 aagtgctctg tatcctccag tctccgcgcc tccacccagc tcaggaaccc gcgaaccctc
901 tcttgaccac tatgagcctc ccgtccagcc gcgcggcccg tgtcccgggt ccttcgggct
961 ccttgtgcgc gctgctcgcg ctgctgctcc tgctgacgcc gccggggccc ctcgccagcg
1021 gtgagagctc ctggcactgg ggtgcatccc agcctctgcg gggccgctgc gttccaggga
1081 actctcccag caacctgccc tataaaaatg tctttcttcc ccagctggtc ctgtctctgc
1141 tgtgctgaca gagctgcgtt gcacttgttt acgcgttacg ctgagagtaa accccaaaac
1201 gattggtaaa ctgcaggtgt tccccgcagg cccgcagtgc tccaaggtgg aagtggtgta
1261 agttctcctg tgttgctgtg tccactgtga cttaggcaag tcctccagcc tgggtcgtca
1321 acctttgtgg ctcatgggtg catcctcttt ttctttactt cagagcctcc ctgaagaacg
1381 ggaagcaagt ttgtctggac ccggaagccc cttttctaaa gaaagtcatc cagaaaattt
1441 tggacaggta tttgtccctt tgatctttgt ggtgttttaa tatcttctat ggaaagcata
1501 tacttcacaa tgtccttatt ctctctgtag gatttagact atgcttagaa ttataaggtt
1561 gttaagaaga ataaggaaac tttttttctg gaatgttctg ggtaaacctt tatcaccaat
1621 cttacatgcc tgaacaatta cacagagctc attactgaca tctatttttt gtctgctctt
1681 tgcttttatt gatttttttc ccccaccaaa cgctttgaa aaccaaatgt agcatacaag
1741 agtgtgggaa ttggttatac taatataact cttttctcaa cagtggaaac aagaaaaact
1801 gagtaacaaa aaagaccatg catcataaaa ttgcccagtc ttcagcggag cagttttctg
1861 gagatccctg gacccagtaa gaataagaag gaagggttgg ttttttcca ttttctacat
1921 ggattcccta ctttgaagag tgtgggggaa agcctacgct tctccctgaa gtttacagct
1981 cagctaatga agtactaata tagtatttcc actatttact gttattttac ctgataagtt
2041 attgaaccct ttggcaattg accatattgt gagcaaagaa tcactggtta ttagtctttc
2101 aatgaatatt gaattgaaga taactattgt atttctatca tacattcctt aaagtcttac
2161 cgaaaaggct gtggatttcg tatggaaata atgttttatt agtgtgctgt tgagggaggt
2221 atcctgttgt tcttactcac tcttctcata aaataggaaa tattttagtt ctgtttcttg
2281 gggaatatgt tactctttac cctaggatgc tatttaagtt gtactgtatt agaacactgg
2341 gtgtgtcata ccgttatctg tgcagaatat atttccttat tcagaatttc taaaaattta
2401 agttctgtaa gggctaatat attctcttcc tatggtttta gacgtttgat gtcttcttag
2461 tatggcataa tgtcatgatt tactcattaa actttgattt tgtatgctat tttttcacta
2521 taggatgact ataattctgg tcactaaata tacactttag atagatgaag aagcccaaaa
2581 acagataaat tcctgattgc taatttacat agaaatgtat tctcttggtt ttttaaataa
2641 aagcaaaatt aacaatgatc tgtgctctga aagttttgaa aatatatttg aacaatttga
2701 atataaattc atcatttagt cctcaaaata tatacagcat tgctaagatt ttcagatatc
2761 tattgtggat cttttaaagg ttttgaccat tttgttatga ggaattatac atgtatcaca
2821 ttcactatat taaaattgca cttttatttt ttcctgtgtg tcatgttggt ttttggtact

Fig. 3 (cont.)

2881 tgtattgtca tttggagaaa caataaaaga tttctaaacc actgatgttg tttctccttc
2941 ttatacagtt actatttatc tttaattcta cattattcaa aatattacct ctgctcttct
3001 ctggctggca gagaggccct cattacccaa taccattgca ttggttcaac ttttctccat
3061 gttcagcccc cttccagtta ctccttcaca gcaccaatag cctctggggt ctttagaaaa
3121 cacaaatagg ataagatttt cctatctaaa ttcttaaatg gctccctgtt tcctagacat
3181 gaaataaaag ttgctaaaca tgatgaatga ggttctgtct catctcactc ctgatcatcg
3241 gtacttcaac ttcccttgtg cctcacattc actatagtca ggcgttcagt tccctaacta
3301 ggcatgttct ttccccaggc tcatgacttt gtatttgcta gggtctctac ctggaaagca
3361 tttacgtttt cctgcgtata agaggaggct tattcatcct tcagaactca gttcaagcaa
3421 tatctccttc gtgaattttc cttggcacac tcagcaaagc

H.sapiens mRNA for granulocyte chemotactic protein.
ACCESSION Y08770
VERSION Y08770.1 GI:1769436
1 ggtcctgtct ctgctgtgct cacggagctg cgttgcactt gtttacgcgt tacgctgaga
61 gtaaacccca aaacgattgg taaactgcag gtgttccccg caggcccgca gtgctccaag
121 gtggaagtgg tagcctccct gaagaacggg aagcaagttt gtctggaccc ggaagcccct
181 tttctaaaga aagtcatcca gaaaattttg gacagtggaa acaagaaaaa ctgagtaaca
241 gtcgacgcgg ccgc

Human gro alpha gene 5' end.
ACCESSION M65005
VERSION M65005.1 GI:183624
1 tcccacctct caggtggtat cttcagcgca ggctgccact cagcccccct ccagggatct
61 ggggcagaag gcgaatatcc cagagtctca gagtccacag gagttactct gaagggcgag
121 ccgcgggctg catcagtgga cccccacacc ccacccgcac cccaagcgct ccaccctggg
181 ggcggggccg tcgccttcct tccggactcg ggatcgatct ggaactccgg gaatttccct
241 ggcccggggg ctccgccctt tccagcccca accatgcata aaaggggttc gcggatctcg
301 gagagccaca gagcccgggc cgcaggcacc tcctcgccag ctcttccgct cctctcacag
361 ccgccagacc cgcctgctga gccccatggc ccg

Human gro beta gene 5' end.
ACCESSION M65006
VERSION M65006.1 GI:183630
1 cgcctcctcg caggcggtta tctcggtatc tctgagagcg gcgggctctc gctcccgctc
61 cagggattcg gggcagaaag agaacatccc acagttggcg ggagttacgc aagacagtca
121 gacccggacg tcactcgtga gtgccccgac ccccctccac cccagaggcg gggccatcgc

Fig. 3 (cont.)

181 cttccttccg aactcgggat cgatctggag ctccgggaat ttccctggcc cgggactccg
241 gctttccagc cccaaccatg cataaaaggg gttcgccgtt ctcggagagc cacagagccc
301 gggccacagg cagctccttg ccagctctcc tcctcgcaca gccgctcgaa ccgcctgctg
361 agccccatgg cccg

Human cytokine (GRO-gamma) mRNA, complete cds.
ACCESSION M36821
VERSION M36821.1 GI:183632
1 cacagccggg tcgcaggcac ctccccngcc agctctcccg cattctgcac agcttcccga
61 cgcgtctgct gagccccatg gcccacgcca cgctctccgc cgcccccagc aatccccggc
121 tcctgcgggt ggcgctgctg ctcctgctcc tggtgggcag ccggcgcgca gcaggagcgt
181 ccgtggtcac tgaactgcgc tgccagtgct tgcagacact gcagggaatt cacctcaaga
241 acatccaaag tgtgaatgta aggtcccccg gaccccactg cgcccaaacc gaagtcatag
301 ccacactcaa gaatgggaag aaagcttgtc tcaaccccgc atcccccatg gttcagaaaa
361 tcatcgaaaa gatactgaac aaggggagca ccaactgaca ggagagaagt aagaagctta
421 tcagcgtatc attgacactt cctgcagggt ggtccctgcc cttaccagag ctgaaaatga
481 aaaagagaac agcagctttc tagggacagc tggaaaggga cttaatgtgt ttgactattt
541 cttacgaggg ttctacttat ttatgtattt atttttgaaa gcttgtattt taatatttta
601 catgctgtta tttaaagatg tgagtgtgtt tcatcaaaca tagctcagtc ctgattattt
661 aattggaata tgatgggttt taaatgtgtc attaaactaa tatttagtgg gagaccataa
721 tgtgtcagcc accttgataa atgacagggt ggggaactgg agggtngggg gattgaaatg
781 caagcaatta gtggatcact gttagggtaa gggaatgtat gtacacatct atttttata
841 ctttttttt taaaaaagaa tgtcagttgt tatttattca aattatctca cattatgtgt
901 tcaacatttt tatgctgaag tttcccttag acattttatg tcttgcttgt agggcataat
961 gccttgttta atgtccattc tgcagcgttt ctctttccct tggaaaagag aatttatcat
1021 tactgttaca tttgtacaaa tgacatgata ataaaagttt tatg
//
Homo sapiens neutrophil-activating peptide 78 (ENA-78) gene,
complete cds.
ACCESSION L37036 Z46254
VERSION L37036.1 GI:607030
1 gaattctcag taagcggact taccaaagta ggtgatctgt aggggagtta acaaaattca
61 gtggtccttt caggccactg acttcaagtg gcaagagaca agggtctctt gttatcatgt
121 tatcttggct tccaaagctg gttgaagtcc agagattcat aaagtcattc aagaaaccta
181 gaatgacctg cctgcaagaa gacaggaagg actttcagtt tatagcaatt caaacatgaa
241 taacatttcc tgattaatag taataataat tagaaaggat tgactttcag aaatttttct
301 caaatcaagg ctcctgttac tttggttcca ccttttctct ctagaaggag aggaggagca
361 tctcccagat gctgcgtgct ccagaaaagc cggcatccct agcccgctct ggcacaggcc

Fig. 3 (cont.)

421 atgaggcgct gctgaatcct gctgaatagc tactcccttc tagctggagc cacagctccc
481 tccaccgcgg aacagggtta caacgtccct ctcggtagag gtgcacgcag ctcctcctgg
541 ccaccctccc caccagttcc cattgtctgg ccccccctccc ccaacctctt ctttccacac
601 tgccccatga gttcagggaa tttccccagc atcccaaagc ttgagtttcc tgtcagtggg
661 gagagatgag tgtagataaa aggagtgcag aaggaacgag gaagccacag tgctccggat
721 cctccaatct tcgctcctcc aatctccgct cctccaccca gttcaggaac ccgcgaccgc
781 tcgcagcgct ctcttgacca ctatgagcct cctgtccagc cgcgcggccc gtgtccccgg
841 tccttcgagc tccttgtgcg cgctgttggt gctgctgctg ctgctgacgc agccagggcc
901 catcgccagc ggtgagagcg catggcgcgc gggacgcact cgcactcggg cacagaggtg
961 catcccagcc tctgcggggt cgctgcgttc cagggaactc tcccagcaac ctgccctata
1021 aagggtgtct ctctttcttc cccagctggt cctgccgctg ctgtgttgag agagctgcgt
1081 tgcgtttgtt tacagaccac gcaaggagtt catcccaaaa tgatcagtaa tctgcaagtg
1141 ttcgccatag gcccacagtg ctccaaggtg gaagtggtgt aagttctgtg ctgctgtgtc
1201 cgctgtgacc ttggcaagag agaaatcccg cagcctgggt cttcaacctt ggtatctcat
1261 gagtgtatct tctttttctt tccttcagag cctccctgaa gaacgggaag gaaatttgtc
1321 ttgatccaga agccccttt ctaaagaaag tcatccagaa aattttggac gggtacttgt
1381 cactttgatc tttgtggttt ctaaatctga tctagggaga ccatagactt cacaaggtct
1441 ttattctctg tacgatttaa gtaacacttt tcatgtttag aattaaaagg ttgttgaatt
1501 gggaaagttt ttctggattg tcctgggaaa atataccaat cttacatgta attacttgag
1561 caattacaca cagcttgtca ctaagttatg ttttttgttt acccattgct tttattgatt
1621 tttgtattct cctttttac caaacatcat aaacgctgag ttttgacaag ggtggagtag
1681 aaaggagtgt gaaaaatggt taaactaata taacattttt ctcaacagtg gaaacaagga
1741 aaactgatta agagaaatga gcacgcatgg aaaagtttcc cagtcttcag cagagaagtt
1801 ttctggaggt ctctgaaccc agggaagaca agaaggaaag attttgttgt tgtttgttta
1861 tttgtttttc cagtagttag ctttcttcct ggattcctca ctttgaagag tgtgaggaaa
1921 acctatgttt gccgcttaag ctttcagctc agctaatgaa gtgtttagca tagtacctct
1981 gctatttgct gttattttat ctgctatgct attgaagttt tggcaattga ctatagtgtg
2041 agccaggaat cactggctgt taatctttca aagtgtcttg aattgtaggt gactattata
2101 tttccaagaa atattcctta agatattaac tgagaaggct gtggatttaa tgtggaaatg
2161 atgtttcata agaattc

Rattus norvegicus monokine induced by gamma interferon (Mig) mRNA,
complete cds.
ACCESSION AF537208
VERSION AF537208.1 GI:33331077
1 tttcctaaat aaatatgacc accaagaaca tgttctctga agacattctc agccttgact
61 ccagcacggt gacttaatag agctcggctc tgccatgaag tccgttgctc tattcctcat
121 gggcatcatc ttcctggatc actgtggagt tcgaggaacc ctagtgataa ggaatcagcg
181 atgctcctgc atcagcacca gccaaggcac attccactac aaatccctca aagacctcaa

Fig. 3 (cont.)

241 acagtttgcc ccaagcccta actgcaacaa aactgaaatc atcgctacac tgaagaacgg
301 agatcaaacc tgcctagacc cagattcagc aagggtgaag aagctgatga aagaatggga
361 gaaaaagatc agccaaaaga aaaagcaaaa gaggggggaaa aaccatcaaa ggagcaagaa
421 aacccgaaaa gctaaaacac cccaccatcc ggagtcaaag aagactgcat aagagaccac
481 tttaccaaca agcgctctgc atctaaacgg cttttagatc atactaaaac gccttccctt
541 taatacacaa ctcg

Rattus norvegicus interferon-inducible T-cell a chemoattractant
I-TAC mRNA, complete cds.
ACCESSION AY340181
VERSION AY340181.1 GI:33304495
1 atcaccagag ccacagcaga gagctgcagc tgccgctgag atgaacagga cgggcatggc
61 cgtagccctg gctatgatca tctgggccac aacggttcca ggcttcgtta tgttcaaagg
121 ggggcgctgt ctttgcatcg accgcggagt gaaagtggtc aaaatggcag caatcaagga
181 agtttctgta atttacccga gtaacggctg tgacaaagtt gaagtgattg ttaccctgaa
241 ggctcataaa ggacaaaggt gcctggaccc cacatccaag caagctcgcc tcataatgca
301 gacaatacaa aaaaagaatt ttttaaggcg ccagaacatg tgatgggccc tcaaattcga
361 gctctgtgcc aagaagctga ccctctcctg tcttggaata tgcatccgtt ttgccagatt
421 gcagaactcg ctaggaggtc ggatacctct aaactattct gcttggctat gaaaatattt
481 atctcgaaga gtcatgtgtc tctgtgtgtg caca
//
Homo sapiens chemokine (C-X-C motif) ligand 12 (stromal
cell-derived factor 1) (CXCL12), mRNA.
ACCESSION NM_000609
VERSION NM_000609.2 GI:29837664
1 tctccgtcag ccgcattgcc cgctcggcgt ccggcccccg acccgtgctc gtccgcccgc
61 ccgcccgccc gcccgcgcca tgaacgccaa ggtcgtggtc gtgctggtcc tcgtgctgac
121 cgcgctctgc ctcagcgacg ggaagcccgt cagcctgagc tacagatgcc catgccgatt
181 cttcgaaagc catgttgcca gagccaacgt caagcatctc aaaattctca acactccaaa
241 ctgtgccctt cagattgtag cccggctgaa gaacaacaac agacaagtgt gcattgaccc
301 gaagctaaag tggattcagg agtacctgga gaaagcttta aacaagaggt tcaagatgtg
361 agagggtcag acgcctgagg aacccttaca gtaggagccc agctctgaaa ccagtgttag
421 ggaagggcct gccacagcct cccctgccag ggcagggccc caggcattgc caagggcttt
481 gttttgcaca ctttgccata ttttcaccat ttgattatgt agcaaaatac atgacattta
541 tttttcattt agtttgatta ttcagtgtca ctggcgacac gtagcagctt agactaaggc
601 cattattgta cttgccttat tagagtgtct ttccacggag ccactcctct gactcagggc
661 tcctgggttt tgtattctct gagctgtgca ggtggggaga ctgggctgag ggagcctggc
721 cccatggtca gccctagggt ggagagccac caagagggac gcctgggggt gccaggacca
781 gtcaacctgg gcaaagccta gtgaaggctt ctctctgtgg gatgggatgg tggagggcca

Fig. 3 (cont.)

841 catgggaggc tcacccccttctccatccac atgggagccg ggtctgcctc ttctgggagg
901 gcagcagggc taccctgagc tgaggcagca gtgtgaggcc agggcagagt gagacccagc
961 cctcatcccg agcacctcca catcctccac gttctgctca tcattctctg tctcatccat
1021 catcatgtgt gtccacgact gtctccatgg ccccgcaaaa ggactctcag gaccaaagct
1081 ttcatgtaaa ctgtgcacca agcaggaaat gaaaatgtct tgtgttacct gaaaacactg
1141 tgcacatctg tgtcttgtgt ggaatattgt ccattgtcca atcctatgtt tttgttcaaa
1201 gccagcgtcc tcctctgtga ccaatgtctt gatgcatgca ctgttccccc tgtgcagccg
1261 ctgagcgagg agatgctcct tgggcccttt gagtgcagtc ctgatcagag ccgtggtcct
1321 ttggggtgaa ctaccttggt tcccccactg atcacaaaaa catggtgggt ccatgggcag
1381 agcccaaggg aattcggtgt gcaccagggt tgaccccaga ggattgctgc cccatcagtg
1441 ctccctcaca tgtcagtacc ttcaaactag ggccaagccc agcactgctt gaggaaaaca
1501 agcattcaca acttgttttt ggtttttaaa acccagtcca caaaataacc aatcctggac
1561 atgaagattc tttcccaatt cacatctaac ctcatcttct tcaccatttg gcaatgccat
1621 catctcctgc cttcctcctg ggccctctct gctctgcgtg tcacctgtgc ttcgggccct
1681 tcccacagga catttctcta agagaacaat gtgctatgtg aagagtaagt caacctgcct
1741 gacatttgga gtgttcccct cccactgagg gcagtcgata gagctgtatt aagccactta
1801 aaatgttcac ttttgacaaa ggcaagcact tgtgggtttt tgttttgttt ttcattcagt
1861 cttacgaata cttttgccct ttgattaaag actccagtta aaaaaaattt taatgaagaa
1921 agtggaaaac aaggaagtca aagcaaggaa actatgtaac atgtaggaag taggaagtaa
1981 attatagtga tgtaatcttg aattgtaact gttcgtgaat ttaataatct gtagggtaat
2041 tagtaacatg tgttaagtat tttcataagt atttcaaatt ggagcttcat ggcagaaggc
2101 aaacccatca acaaaaattg tcccttaaac aaaaattaaa atcctcaatc cagctatgtt
2161 atattgaaaa aatagagcct gagggatctt tactagttat aaagatacag aactctttca
2221 aaacctttg aaattaacct ctcactatac cagtataatt gagttttcag tggggcagtc
2281 attatccagg taatccaaga tattttaaaa tctgtcacgt agaacttgga tgtacctgcc
2341 cccaatccat gaaccaagac cattgaattc ttggttgagg aaacaaacat gaccctaaat
2401 cttgactaca gtcaggaaag gaatcatttc tatttctcct ccatgggaga aaatagataa
2461 gagtagaaac tgcagggaaa attatttgca taacaattcc tctactaaca atcagctcct
2521 tcctggagac tgcccagcta aagcaatatg catttaaata cagtcttcca tttgcaaggg
2581 aaaagtctct tgtaatccga atctcttttt gctttcgaac tgctagtcaa gtgcgtccac
2641 gagctgttta ctagggatcc ctcatctgtc cctccgggac ctggtgctgc ctctacctga
2701 cactcccttg ggctccctgt aacctcttca gaggccctcg ctgccagctc tgtatcagga
2761 cccagaggaa ggggccagag gctcgttgac tggctgtgtg ttgggattga gtctgtgcca
2821 cgtgtatgtg ctgtggtgtg tccccctctg tccaggcact gagataccag cgaggaggct
2881 ccagagggca ctctgcttgt tattagagat tacctcctga gaaaaaagct tccgcttgga
2941 gcagaggggc tgaatagcag aaggttgcac ctcccccaac cttagatgtt ctaagtcttt
3001 ccattggatc tcattggacc cttccatggt gtgatcgtct gactggtgtt atcaccgtgg
3061 gctccctgac tgggagttga tcgcctttcc caggtgctac acccttttcc agctggatga
3121 gaatttgagt gctctgatcc ctctacagag cttccctgac tcattctgaa ggagccccat

Fig. 3 (cont.)

3181 tcctgggaaa tattccctag aaacttccaa atcccctaag cagaccactg ataaaaccat
3241 gtagaaaatt tgttattttg caacctcgct ggactctcag tctctgagca gtgaatgatt
3301 cagtgttaaa tgtgatgaat actgtatttt gtattgtttc aagtgcatct cccagataat
3361 gtgaaaatgg tccaggagaa ggccaattcc tatacgcagc gtgctttaaa aaataaataa
3421 gaaacaactc tttgagaaac aacaatttct actttgaagt cataccaatg aaaaaatgta
3481 tatgcactta taattttcct aataaagttc tgtactcaaa tgta

Fig. 3 (cont.)

Human tumor necrosis factor-beta (TNFB) gene, complete cds.

ACCESSION M55913

VERSION M55913.1 GI:339742

1 ccgacctaga acccgcccgc tgcctgccac gctgccactg ccgcttcctc tataaaggga

61 cctgagcgtc cgggcccagg ggctccgcac agcaggtgag gctctcctgc cccatctcct

121 tgggctgccc gtgcttcgtg ctttggacta ccgccccgca gtgtcctgcc ctctgcctgg

181 gcctcggtcc ctcctgcacc tgctgcctgg atccccggcc tgcctgggcc tgggccttgg

241 tgggtttggt tttggtttcc ttctctgtct ctgactctcc atctgtcagt ctcattgtct

301 ctgtcacaca ttctctgttt ctgccatgat tcctctctgt tcccttcctg tctctctctg

361 tctccctctg ctcaccttgg ggtttctctg actgcatctt gtccccttct ctgtcgatct

421 ctctctcggg ggtcgggggg tgctgtctcc cagggcggga ggtctgtctt ccgccgcgtg

481 ccccgccccg ctcactgtct ctctctctct ctctctttct ctgcaggttc tccccatgac

541 accacctgaa cgtctcttcc tcccaagggt gtgtggcacc accctacacc tcctccttct

601 ggggctgctg ctggttctgc tgcctggggc ccaggtgagg cagcaggaga atgggggctg

661 ctggggtggc tcagccaaac cttgagccct agagcccccc tcaactctgt tctcccctag

721 gggctccctg gtgttggcct cacaccttca gctgcccaga ctgcccgtca gcaccccaag

781 atgcatcttg cccacagcac cctcaaacct gctgctcacc tcattggtaa acatccacct

841 gacctcccag acatgtcccc accagctctc ctcctacccc tgcctcagga acccaagcat

901 ccacccctct cccccaactt cccccacgct aaaaaaaaca gagggagccc actcctatgc

961 ctccccctgc catcccccag gaactcagtt gttcagtgcc cacttcctca gggattgaga

1021 cctctgatcc agaccccctga tctcccaccc ccatccccta tggctcttcc taggagaccc

1081 cagcaagcag aactcactgc tctggagagc aaacacggac cgtgccttcc tccaggatgg

1141 tttctccttg agcaacaatt ctctcctggt ccccaccagt ggcatctact tcgtctactc

1201 ccaggtggtc ttctctggga aagcctactc tcccaaggcc ccctcctccc cactctacct

1261 ggcccatgag gtccagctct tctcctccca gtacccottc catgtgcctc tcctcagctc

1321 ccagaagatg gtgtatccag ggctgcagga accctggctg cactcgatgt accacggggc

1381 tgcgttccag ctcacccagg gagaccagct atccacccac acagatggca tcccccacct

1441 agtcctcagc cctagtactg tcttctttgg agccttcgct ctgtagaact tggaaaaatc

1501 cagaaagaaa aaataattga tttcaagacc ttctccccat tctgcctcca ttctgaccat

1561 ttcaggggtc gtcaccacct ctcctttggc cattccaaca gctcaagtct tccctgatca

1621 agtcaccgga gctttcaaag aaggaattct aggcatccca ggggaccaca cctccctgaa

1681 ccatccctga tgtctgtctg gctgaggatt tcaagcctgc ctaggaattc ccagcccaaa

1741 gctgttggtc ttgtccacca gctaggtggg gcctagatcc acacacagag gaagagcagg

1801 cacatggagg agcttggggg atgactagag gcagggaggg gactatttat gaaggcaaaa

1861 aaattaaatt atttatttat ggaggatgga gagaggggaa taatagaaga acatccaagg

1921 agaaacagag acaggcccaa gagatgaaga gtgagagggc atgcgcacaa ggctgaccaa

1981 gagagaaaga agtaggcatg agggatcaca gggccccaga aggcagggaa aggctctgaa

2041 agccagctgc cgaccagagc cccacacgga ggcatctgca ccctcgatga agcccaataa

2101 acctcttttc tctgaaatgc tgtctgcttg tgtgtgtgtg

Fig. 3 (cont.)

Homo sapiens interleukin 1, beta (IL1B), mRNA.

ACCESSION NM_000576

VERSION NM_000576.2 GI:27894305

1 accaaacctc ttcgaggcac aaggcacaac aggctgctct gggattctct tcagccaatc

61 ttcattgctc aagtgtctga agcagccatg gcagaagtac ctgagctcgc cagtgaaatg

121 atggcttatt acagtggcaa tgaggatgac ttgttctttg aagctgatgg ccctaaacag

181 atgaagtgct ccttccagga cctggacctc tgccctctgg atggcggcat ccagctacga

241 atctccgacc accactacag caagggcttc aggcaggccg cgtcagttgt tgtggccatg

301 gacaagctga ggaagatgct ggttccctgc ccacagacct tccaggagaa tgacctgagc

361 accttctttc ccttcatctt tgaagaagaa cctatcttct tcgacacatg ggataacgag

421 gcttatgtgc acgatgcacc tgtacgatca ctgaactgca cgctccggga ctcacagcaa

481 aaaagcttgg tgatgtctgg tccatatgaa ctgaaagctc tccacctcca gggacaggat

541 atggagcaac aagtggtgtt ctccatgtcc tttgtacaag gagaagaaag taatgacaaa

601 atacctgtgg ccttgggcct caaggaaaag aatctgtacc tgtcctgcgt gttgaaagat

661 gataagccca ctctacagct ggagagtgta gatcccaaaa attacccaaa gaagaagatg

721 gaaaagcgat ttgtcttcaa caagatagaa atcaataaca agctggaatt tgagtctgcc

781 cagttcccca actggtacat cagcacctct caagcagaaa acatgcccgt cttcctggga

841 gggaccaaag gcggccagga tataactgac ttcaccatgc aatttgtgtc ttcctaaaga

901 gagctgtacc cagagagtcc tgtgctgaat gtggactcaa tccctagggc tggcagaaag

961 ggaacagaaa ggtttttgag tacggctata gcctggactt tcctgttgtc tacaccaatg

1021 cccaactgcc tgccttaggg tagtgctaag aggatctcct gtccatcagc caggacagtc

1081 agctctctcc tttcagggcc aatccccagc ccttttgttg agccaggcct ctctcacctc

1141 tcctactcac ttaaagcccg cctgacagaa accacggcca catttggttc taagaaaccc

1201 tctgtcattc gctcccacat tctgatgagc aaccgcttcc ctatttattt atttatttgt

1261 ttgtttgttt tattcattgg tctaatttat tcaaaggggg caagaagtag cagtgtctgt

1321 aaaagagcct agtttttaat agctatggaa tcaattcaat ttggactggt gtgctctctt

1381 taaatcaagt cctttaatta agactgaaaa tatataagct cagattattt aaatgggaat

1441 atttataaat gagcaaatat catactgttc aatggttctg aaataaactt cactgaag

Homo sapiens interleukin 1, alpha (IL1A), mRNA.

ACCESSION NM_000575

VERSION NM_000575.3 GI:27894329

1 accaggcaac accattgaag gctcatatgt aaaaatccat gccttccttt ctcccaatct

61 ccattcccaa acttagccac tggcttctgg ctgaggcctt acgcatacct cccggggctt

121 gcacacacct tcttctacag aagacacacc ttgggcatat cctacagaag accaggcttc

181 tctctggtcc ttggtagagg gctactttac tgtaacaggg ccagggtgga gagttctctc

241 ctgaagctcc atcccctcta taggaaatgt gttgacaata ttcagaagag taagaggatc

301 aagacttctt tgtgctcaaa taccactgtt ctcttctcta ccctgcccta accaggagct

Fig. 3 (cont.)

361 tgtcacccca aactctgagg tgatttatgc cttaatcaag caaacttccc tcttcagaaa
421 agatggctca ttttccctca aaagttgcca ggagctgcca agtattctgc caattcaccc
481 tggagcacaa tcaacaaatt cagccagaac acaactacag ctactattag aactattatt
541 attaataaat tcctctccaa atctagcccc ttgacttcgg atttcacgat ttctcccttc
601 ctcctagaaa cttgataagt ttcccgcgct tccctttttc taagactaca tgtttgtcat
661 cttataaagc aaaggggtga ataaatgaac caaatcaata acttctggaa tatctgcaaa
721 caacaataat atcagctatg ccatctttca ctattttagc cagtatcgag ttgaatgaac
781 atagaaaaat acaaaactga attcttccct gtaaattccc cgttttgacg acgcacttgt
841 agccacgtag ccacgcctac ttaagacaat tacaaaaggc gaagaagact gactcaggct
901 taagctgcca gccagagagg gagtcatttc attggcgttt gagtcagcaa agaagtcaag
961 atggccaaag ttccagacat gtttgaagac ctgaagaact gttacagtga aaatgaagaa
1021 gacagttcct ccattgatca tctgtctctg aatcagaaat ccttctatca tgtaagctat
1081 ggcccactcc atgaaggctg catggatcaa tctgtgtctc tgagtatctc tgaaacctct
1141 aaaacatcca agcttacctt caaggagagc atggtggtag tagcaaccaa cgggaaggtt
1201 ctgaagaaga gacggttgag tttaagccaa tccatcactg atgatgacct ggaggccatc
1261 gccaatgact cagaggaaga aatcatcaag cctaggtcag caccttttag cttcctgagc
1321 aatgtgaaat acaactttat gaggatcatc aaatacgaat tcatcctgaa tgacgccctc
1381 aatcaaagta taattcgagc caatgatcag tacctcacgg ctgctgcatt acataatctg
1441 gatgaagcag tgaaatttga catgggtgct tataagtcat caaaggatga tgctaaaatt
1501 accgtgattc taagaatctc aaaaactcaa ttgtatgtga ctgcccaaga tgaagaccaa
1561 ccagtgctgc tgaaggagat gcctgagata cccaaaacca tcacaggtag tgagaccaac
1621 ctcctcttct tctgggaaac tcacggcact aagaactatt tcacatcagt tgcccatcca
1681 aacttgttta ttgccacaaa gcaagactac tgggtgtgct tggcaggggg gccaccctct
1741 atcactgact ttcagatact ggaaaaccag gcgtaggtct ggagtctcac ttgtctcact
1801 tgtgcagtgt tgacagttca tatgtaccat gtacatgaag aagctaaatc ctttactgtt
1861 agtcatttgc tgagcatgta ctgagccttg taattctaaa tgaatgttta cactctttgt
1921 aagagtggaa ccaacactaa catataatgt tgttatttaa agaacaccct atattttgca
1981 tagtaccaat cattttaatt attattcttc ataacaattt taggaggacc agagctactg
2041 actatggcta ccaaaaagac tctacccata ttacagatgg gcaaattaag gcataagaaa
2101 actaagaaat atgcacaata gcagttgaaa caagaagcca cagacctagg atttcatgat
2161 ttcatttcaa ctgtttgcct tctacttta agttgctgat gaactcttaa tcaaatagca
2221 taagtttctg ggacctcagt tttatcattt tcaaaatgga gggaataata cctaagcctt
2281 cctgccgcaa cagtttttta tgctaatcag ggaggtcatt ttggtaaaat acttcttgaa
2341 gccgagcctc aagatgaagg caaagcacga aatgttattt tttaattatt atttatatat
2401 gtatttataa atatatttaa gataattata atatactata tttatgggaa ccccttcatc
2461 ctctgagtgt gaccaggcat cctccacaat agcagacagt gttttctggg ataagtaagt
2521 ttgatttcat taatacaggg cattttggtc caagttgtgc ttatcccata gccaggaaac
2581 tctgcattct agtacttggg agacctgtaa tcatataata aatgtacatt aattaccttg
2641 agccagtaat tggtccgatc tttgactctt ttgccattaa acttacctgg gcattcttgt

Fig. 3 (cont.)

2701 ttcaattcca cctgcaatca agtcctacaa gctaaaatta gatgaactca actttgacaa
2761 ccatgagacc actgttatca aaactttctt ttctggaatg taatcaatgt ttcttctagg
2821 ttctaaaaat tgtgatcaga ccataatgtt acattattat caacaatagt gattgataga
2881 gtgttatcag tcataactaa ataaagcttg caacaaaatt ctctgacaaa aaaaaaaaaa
2941 aaa

Homo sapiens interleukin 2 (IL2), mRNA.
ACCESSION NM_000586
VERSION NM_000586.2 GI:28178860
1 cgaattcccc tatcacctaa gtgtgggcta atgtaacaaa gagggatttc acctacatcc
61 attcagtcag tctttggggg tttaaagaaa ttccaaagag tcatcagaag aggaaaaatg
121 aaggtaatgt tttttcagac aggtaaagtc tttgaaaata tgtgtaatat gtaaaacatt
181 ttgacacccc cataatattt ttccagaatt aacagtataa attgcatctc ttgttcaaga
241 gttccctatc actctcttta atcactactc acagtaacct caactcctgc cacaatgtac
301 aggatgcaac tcctgtcttg cattgcacta agtcttgcac ttgtcacaaa cagtgcacct
361 acttcaagtt ctacaaagaa aacacagcta caactggagc atttactgct ggatttacag
421 atgattttga atggaattaa taattacaag aatcccaaac tcaccaggat gctcacattt
481 aagttttaca tgcccaagaa ggccacagaa ctgaaacatc ttcagtgtct agaagaagaa
541 ctcaaacctc tggaggaagt gctaaattta gctcaaagca aaaactttca cttaagaccc
601 agggacttaa tcagcaatat caacgtaata gttctggaac taaagggatc tgaaacaaca
661 ttcatgtgtg aatatgctga tgagacagca accattgtag aatttctgaa cagatggatt
721 acctttttgtc aaagcatcat ctcaacactg acttgataat taagtgcttc ccacttaaaa
781 catatcaggc cttctattta tttaaatatt taaattttat atttattgtt gaatgtatgg
841 tttgctacct attgtaacta ttattcttaa tcttaaaact ataaatatgg atcttttatg
901 attctttttg taagccctag gggctctaaa atggtttcac ttatttatcc caaaatattt
961 attattatgt tgaatgttaa atatagtatc tatgtagatt ggttagtaaa actatttaat
1021 aaatttgata aatataaaaa aaaaaaa

Homo sapiens interleukin 3 (colony-stimulating factor, multiple)
(IL3), mRNA.
ACCESSION NM_000588
VERSION NM_000588.3 GI:28416914
1 cagagcccca cgaaggacca gaacaagaca gagtgcctcc tgccgatcca aacatgagcc
61 gcctgcccgt cctgctcctg ctccaactcc tggtccgccc cggactccaa gctcccatga
121 cccagacaac gcccttgaag acaagctggg ttaactgctc taacatgatc gatgaaatta
181 taacacactt aaagcagcca cctttgcctt tgctggactt caacaacctc aatggggaag
241 accaagacat tctgatggaa aataaccttc gaaggccaaa cctggaggca ttcaacaggg
301 ctgtcaagag tttacagaac gcatcagcaa ttgagagcat tcttaaaaat ctcctgccat

Fig. 3 (cont.)

361 gtctgcccct ggccacggcc gcacccacgc gacatccaat ccatatcaag gacggtgact
421 ggaatgaatt ccggaggaaa ctgacgttct atctgaaaac ccttgagaat gcgcaggctc
481 aacagacgac tttgagcctc gcgatctttt gagtccaacg tccagctcgt tctctgggcc
541 ttctcaccac agagcctcgg gacatcaaaa acagcagaac ttctgaaacc tctgggtcat
601 ctctcacaca ttccaggacc agaagcattt caccttttcc tgcggcatca gatgaattgt
661 taattatcta atttctgaaa tgtgcagctc ccatttggcc ttgtgcggtt gtgttctcat
721 ttttatccca ttgagactat ttatttatgt atgtatgtat ttatttattt attgcctgga
781 gtgtgaactg tatttatttt agcagaggag ccatgtcctg ctgcttctgc aaaaaactca
841 gagtggggtg gggagcatgt tcatttgtac ctcgagtttt aaactggttc ctagggatgt
901 gtgagaataa actagactct gaac

//

Homo sapiens interleukin 4 (IL4), transcript variant 2, mRNA.
ACCESSION NM_172348
VERSION NM_172348.1 GI:27477091
1 ttctatgcaa agcaaaaagc cagcagcagc cccaagctga taagattaat ctaaagagca
61 aattatggtg taatttccta tgctgaaact ttgtagttaa ttttttaaaa aggtttcatt
121 ttcctattgg tctgatttca caggaacatt ttacctgttt gtgaggcatt ttttctcctg
181 gaagagaggt gctgattggc cccaagtgac tgacaatctg gtgtaacgaa aatttccaat
241 gtaaactcat tttccctcgg tttcagcaat tttaaatcta tatatagaga tatctttgtc
301 agcattgcat cgttagcttc tcctgataaa ctaattgcct cacattgtca ctgcaaatcg
361 acacctatta atgggtctca cctcccaact gcttcccct ctgttcttcc tgctagcatg
421 tgccggcaac tttgtccacg gacacaagtg cgatatcacc ttacaggaga tcatcaaaac
481 tttgaacagc ctcacagagc agaagaacac aactgagaag gaaaccttct gcagggctgc
541 gactgtgctc cggcagttct acagccacca tgagaaggac actcgctgcc tgggtgcgac
601 tgcacagcag ttccacaggc acaagcagct gatccgattc ctgaaacggc tcgacaggaa
661 cctctggggc ctggcgggct tgaattcctg tcctgtgaag gaagccaacc agagtacgtt
721 ggaaaacttc ttggaaaggc taaagacgat catgagagag aaatattcaa agtgttcgag
781 ctgaatattt taatttatga gtttttgata gctttatttt ttaagtattt atatatttat
841 aactcatcat aaaataaagt atatatagaa tct

//

Homo sapiens interleukin 4 (IL4), transcript variant 1, mRNA.
ACCESSION NM_000589
VERSION NM_000589.2 GI:27477090
1 ttctatgcaa agcaaaaagc cagcagcagc cccaagctga taagattaat ctaaagagca
61 aattatggtg taatttccta tgctgaaact ttgtagttaa ttttttaaaa aggtttcatt
121 ttcctattgg tctgatttca caggaacatt ttacctgttt gtgaggcatt ttttctcctg
181 gaagagaggt gctgattggc cccaagtgac tgacaatctg gtgtaacgaa aatttccaat
241 gtaaactcat tttccctcgg tttcagcaat tttaaatcta tatatagaga tatctttgtc

Fig. 3 (cont.)

301 agcattgcat cgttagcttc tcctgataaa ctaattgcct cacattgtca ctgcaaatcg
361 acacctatta atgggtctca cctcccaact gcttcccct ctgttcttcc tgctagcatg
421 tgccggcaac tttgtccacg gacacaagtg cgatatcacc ttacaggaga tcatcaaaac
481 tttgaacagc ctcacagagc agaagactct gtgcaccgag ttgaccgtaa cagacatctt
541 tgctgcctcc aagaacacaa ctgagaagga aaccttctgc agggctgcga ctgtgctccg
601 gcagttctac agccaccatg agaaggacac tcgctgcctg ggtgcgactg cacagcagtt
661 ccacaggcac aagcagctga tccgattcct gaaacggctc gacaggaacc tctggggcct
721 ggcgggcttg aattcctgtc ctgtgaagga agccaaccag agtacgttgg aaaacttctt
781 ggaaaggcta aagacgatca tgagagagaa atattcaaag tgttcgagct gaatatttta
841 atttatgagt ttttgatagc tttatttttt aagtatttat atatttataa ctcatcataa
901 aataaagtat atatagaatc t

Human interleukin 5 (IL-5) gene, complete cds.
ACCESSION J03478
VERSION J03478.1 GI:186338
1 atcctaatca agaccccagt gaacagaact cgaccctgcc aaggcttggc atttccattt
61 caatcactgt cttcccacca gtattttcaa tttcttttaa gacagattaa tctagccaca
121 gtcatagtag aacatagccg atcttgaaaa aaaacattcc caatatttat gtattttagc
181 ataaaattct gtttagtggt ctaccttata ctttgttttg cacacatctt ttaagaggaa
241 gttaattttc tgattttaag aaatgcaaat gtggggcaat gatgtattaa cccaaagatt
301 ccttccgtaa tagaaaatgt ttttaaaggg gggaaacagg gatttttatt attaaaagat
361 aaaagtaaat ttatttttta agatataagg cattggaaac atttagtttc acgatatgcc
421 attattaggc attctctatc tgattgttag aaattattca tttcctcaaa gacagacaat
481 aaattgactg gggacgcagt cttgtactat gcactttctt tgccaaaggc aaacgcagaa
541 cgtttcagag ccatgaggat gcttctgcat ttgagtttgc tagctcttgg agctgcctac
601 gtgtatgcca tccccacaga aattcccaca agtgcattgg tgaaagagac cttggcactg
661 ctttctactc atcgaactct gctgatagcc aatgaggtaa ttttctttat gattcctaca
721 gtctgtaaag tgcataggta atcatttgtg atggttcctt tactatatat agagatctgt
781 tataaataat aagattctga gcacattagt acatgggtga taactacatc accagcaaac
841 attctgttaa aagttatgaa tgctggtgtg ctgtaaaaat gattgtattt cctttcctct
901 ccagactctg aggattcctg ttcctgtaca taaaaatgta agttaaatta tgattcagta
961 aaatgatggc atgaataagt aaatttcctg ttttaagctg taaatcatta gttatcattg
1021 gaactattta attttctata ttttgttttc atatgggtgg ctgtgaatgt ctgtacttat
1081 aaatatgagg aatgactttt tatcaagtag aatcctttaa acaagtggat taggctcttt
1141 ggtgatgttg ttagtttgcc ttcccaaaga gcatcgtgtc aggattcttt ccagaaggat
1201 tccacactga gtgagaggtg cgtgctagtc tccgtgcagt tctgactctt tctcactcta
1261 acgtgtttct gaaagtatta gcaactcaga attatatttt tagaaccatg atcagtagac
1321 attaaaatat ataacaaatg ccctatatta ataattctgc atacttaaat aattatgact

Fig. 3 (cont.)

1381 atatgatggt gtgtatgcat tgaatatgcc tggtcatatt aaaatgtaaa atatatagtt
1441 tattagtcta aatagaataa aactaccagc tagaactgta gaaacacatt gatatgagtt
1501 taatgtataa tgcattacac ttccaaaaca ttttttcca gttacataat taagttatat
1561 cctttataaa actcctcagt aatcatataa gcttcatcta ctttttgaaa attttatctt
1621 aatatgtggt ggtttgttgc ctagaaaaca aacaaaaaac tctttggaga agggaactca
1681 tgtaaatacc acaaaacaaa gcctaacttt gtggaccaaa attgttttaa taattatttt
1741 ttaattgatg aattaaaaag tatatatatt tattgtgtac aatatgatgt tttgaagtat
1801 gtatacattg cagaatggac aatggaccaa atttttatac cttgtcttga ttatttgcat
1861 tttaaaaatt ttcctcattt agcaccaact gtgcactgaa gaaatctttc agggaatagg
1921 cacactggag agtcaaactg tgcaaggggg tactgtggaa agactattca aaaacttgtc
1981 cttaataaag aaatacattg acggccaaaa agtaagttac acacattcaa tggaagctat
2041 atttgtcctg gctgtgccta tttctatgga attgacagtt tcctgtaata cctattgtca
2101 tttttctttt ttcacagaaa aagtgtggag aagaaagacg gagagtaaac caattcctag
2161 actacctgca agagtttctt ggtgtaatga acaccgagtg gataatagaa agttgagact
2221 aaactggttt gttgcagcca aagattttgg aggagaagga cattttactg cagtgagaat
2281 gagggccaag aaagagtcag gccttaattt tcaatataat ttaacttcag agggaaagta
2341 aatatttcag gcatactgac actttgccag aaagcataaa attcttaaaa tatatttcag
2401 atatcagaat cattgaagta ttttcctcca ggcaaaattg atatactttt ttcttattta
2461 acttaacatt ctgtaaaatg tctgttaact taatagtatt tatgaaatgg ttaagaattt
2521 ggtaaattag tatttattta atgttatgtt gtgttctaat aaaacaaaaa tagacaactg
2581 ttcaatttgc tgctggcctc tgtccttagc aatttgaagt tagcacagtc cattgagtac
2641 atgcccagtt tggaggaagg gtctgagcac atgtggctga gcatccccat ttctctggag
2701 aagtctcaag gttgcaaggc acaccagagg tggaagtgat ctagcaggac ttagtgggga
2761 tgtggggagc agggacacag gcaggaggtg aacctggttt tctctctaca gtatatccag
2821 aacctgggat ggtcgaaggg taaatggtag ggaataaatg aatgaatgtc gtttccaaga
2881 tgattgtaga actaaaatga gttgtaagct cccctggaag aagggatgtg gaacctgtaa
2941 ctaggttcct gcccagcctg tgagaagaat ttggcagatc atctcattgc cagtatagag
3001 aggaagccag aaaccctctc tgccaaggcc tgcaggggtt cttaccacct gaccctgcac
3061 cataacaaaa ggacagagag acatggtagg gcagtcccat tagaaagact gagttccgta
3121 ttcccggggc agggcagcac caggccgcac aacatccatt ctgcctgctt atggctatca
3181 gtagcatcac tagagattct tctgtttgag aaaacttctc tcaaggatcc
//
Homo sapiens interleukin 6 (interferon, beta 2) (IL6), mRNA.
ACCESSION NM_000600
VERSION NM_000600.1 GI:10834983
1 ttctgccctc gagcccaccg ggaacgaaag agaagctcta tctcgcctcc aggagcccag
61 ctatgaactc cttctccaca agcgccttcg gtccagttgc cttctccctg gggctgctcc
121 tggtgttgcc tgctgccttc cctgccccag taccccccagg agaagattcc aaagatgtag
181 ccgccccaca cagacagcca ctcacctctt cagaacgaat tgacaaacaa attcggtaca

Fig. 3 (cont.)

241 tcctcgacgg catctcagcc ctgagaaagg agacatgtaa caagagtaac atgtgtgaaa
301 gcagcaaaga ggcactggca gaaaacaacc tgaaccttcc aaagatggct gaaaaagatg
361 gatgcttcca atctggattc aatgaggaga cttgcctggt gaaaatcatc actggtcttt
421 tggagtttga ggtataccta gagtacctcc agaacagatt tgagagtagt gaggaacaag
481 ccagagctgt gcagatgagt acaaaagtcc tgatccagtt cctgcagaaa aaggcaaaga
541 atctagatgc aataaccacc cctgacccaa ccacaaatgc cagcctgctg acgaagctgc
601 aggcacagaa ccagtggctg caggacatga caactcatct cattctgcgc agctttaagg
661 agttcctgca gtccagcctg agggctcttc ggcaaatgta gcatgggcac ctcagattgt
721 tgttgttaat gggcattcct tcttctggtc agaaacctgt ccactgggca cagaacttat
781 gttgttctct atggagaact aaaagtatga gcgttaggac actattttaa ttatttttaa
841 tttattaata tttaaatatg tgaagctgag ttaatttatg taagtcatat ttatattttt
901 aagaagtacc acttgaaaca ttttatgtat tagttttgaa ataataatgg aaagtggcta
961 tgcagtttga atatcctttg tttcagagcc agatcatttc ttggaaagtg taggcttacc
1021 tcaaataaat ggctaactta tacatatttt taaagaaata tttatattgt atttatataa
1081 tgtataaatg gtttttatac caataaatgg cattttaaaa aattc

Homo sapiens interleukin 7 (IL7), mRNA.
NM_000880
VERSION NM_000880.2 GI:28610152
1 acatccgcgg caacgcctcc ttggtgtcgt ccgcttccaa taacccagct tgcgtcctgc
61 acacttgtgg cttccgtgca cacattaaca actcatggtt ctagctccca gtcgccaagc
121 gttgccaagg cgttgagaga tcatctggga agtcttttac ccagaattgc tttgattcag
181 gccagctggt ttttcctgcg gtgattcgga aattcgcgaa ttcctctggt cctcatccag
241 gtgcgcggga agcaggtgcc caggagagag gggataatga agattccatg ctgatgatcc
301 caaagattga acctgcagac caagcgcaaa gtagaaactg aaagtacact gctggcggat
361 cctacggaag ttatggaaaa ggcaaagcgc agagccacgc cgtagtgtgt gccgcccccc
421 ttgggatgga tgaaactgca gtcgcggcgt gggtaagagg aaccagctgc agagatcacc
481 ctgcccaaca cagactcggc aactccgcgg aagaccaggg tcctgggagt gactatgggc
541 ggtgagagct tgctcctgct ccagttgcgg tcatcatgac tacgcccgcc tcccgcagac
601 catgttccat gtttctttta ggtatatctt tggacttcct cccctgatcc ttgttctgtt
661 gccagtagca tcatctgatt gtgatattga aggtaaagat ggcaaacaat atgagagtgt
721 tctaatggtc agcatcgatc aattattgga cagcatgaaa gaaattggta gcaattgcct
781 gaataatgaa tttaactttt ttaaaagaca tatctgtgat gctaataagg aaggtatgtt
841 tttattccgt gctgctcgca agttgaggca atttcttaaa atgaatagca ctggtgattt
901 tgatctccac ttattaaaag tttcagaagg cacaacaata ctgttgaact gcactggcca
961 ggttaaagga agaaaaccag ctgccctggg tgaagcccaa ccaacaaaga gtttggaaga
1021 aaataaatct ttaaaggaac agaaaaaact gaatgacttg tgtttcctaa agagactatt
1081 acaagagata aaaacttgtt ggaataaaat tttgatgggc actaaagaac actgaaaaat
1141 atggagtggc aatatagaaa cacgaacttt agctgcatcc tccaagaatc tatctgctta

Fig. 3 (cont.)

1201 tgcagttttt cagagtggaa tgcttcctag aagttactga atgcaccatg gtcaaaacgg
1261 attagggcat ttgagaaatg catattgtat tactagaaga tgaatacaaa caatggaaac
1321 tgaatgctcc agtcaacaaa ctatttctta tatatgtgaa catttatcaa tcagtataat
1381 tctgtactga tttttgtaag acaatccatg taaggtatca gttgcaataa tacttctcaa
1441 acctgtttaa atatttcaag acattaaatc tatgaagtat ataatggttt caaagattca
1501 aaattgacat tgctttactg tcaaaataat tttatggctc actatgaatc tattatactg
1561 tattaagagt gaaaattgtc ttcttctgtg ctggagatgt tttagagtta acaatgatat
1621 atggataatg ccggtgagaa taagagagtc ataaacctta agtaagcaac agcataacaa
1681 ggtccaagat acctaaaaga gatttcaaga gatttaatta atcatgaatg tgtaacacag
1741 tgccttcaat aaatggtata gcaaatgttt tgacatgaaa aaaggacaat ttcaaaaaaa
1801 taaaataaaa taaaaataaa ttcacctagt ctaaggatgc taaaccttag tactgagtta
1861 cattgtcatt tatatagatt ataacttgtc taaataagtt tgcaatttgg gagatatatt
1921 tttaagataa taatatatgt ttacctttta attaatgaaa tatctgtatt taattttgac
1981 actatatctg tatataaaat attttcatac agcattacaa attgcttact ttggaataca
2041 tttctccttt gataaaataa atgagctatg tattaacaaa aaaaaaaaaa aaaaaaaaaa
2101 aaaaaaaaaa aaaaaa

Homo sapiens interleukin 8 (IL8), mRNA.
ACCESSION NM_000584
VERSION NM_000584.2 GI:28610153
1 ctccataagg cacaaacttt cagagacagc agagcacaca agcttctagg acaagagcca
61 ggaagaaacc accggaagga accatctcac tgtgtgtaaa catgacttcc aagctggccg
121 tggctctctt ggcagccttc ctgatttctg cagctctgtg tgaaggtgca gttttgccaa
181 ggagtgctaa agaacttaga tgtcagtgca taaagacata ctccaaacct ttccacccca
241 aatttatcaa agaactgaga gtgattgaga gtggaccaca ctgcgccaac acagaaatta
301 ttgtaaagct ttctgatgga agagagctct gtctggaccc caaggaaaac tgggtgcaga
361 gggttgtgga gaagtttttg aagagggctg agaattcata aaaaaattca ttctctgtgg
421 tatccaagaa tcagtgaaga tgccagtgaa acttcaagca aatctacttc aacacttcat
481 gtattgtgtg ggtctgttgt agggttgcca gatgcaatac aagattcctg gttaaatttg
541 aatttcagta aacaatgaat agtttttcat tgtaccatga aatatccaga acatacttat
601 atgtaaagta ttatttattt gaatctacaa aaaacaacaa ataatttta aatataagga
661 ttttcctaga tattgcacgg gagaatatac aaatagcaaa attgaggcca agggccaaga
721 gaatatccga actttaattt caggaattga atgggtttgc tagaatgtga tatttgaagc
781 atcacataaa aatgatggga caataaattt tgccataaag tcaaatttag ctggaaatcc
841 tggatttttt tctgttaaat ctggcaaccc tagtctgcta gccaggatcc acaagtcctt
901 gttccactgt gccttggttt ctcctttatt tctaagtgga aaaagtatta gccaccatct
961 tacctcacag tgatgttgtg aggacatgtg gaagcacttt aagtttttc atcataacat
1021 aaattatttt caagtgtaac ttattaacct atttattatt tatgtattta tttaagcatc
1081 aaatatttgt gcaagaattt ggaaaaatag aagatgaatc attgattgaa tagttataaa

Fig. 3 (cont.)

1141 gatgttatag taaatttatt ttattttaga tattaaatga tgttttatta gataaatttc
1201 aatcagggtt tttagattaa acaaacaaac aattgggtac ccagttaaat tttcatttca
1261 gataaacaac aaataatttt ttagtataag tacattattg tttatctgaa attttaattg
1321 aactaacaat cctagtttga tactcccagt cttgtcattg ccagctgtgt tggtagtgct
1381 gtgttgaatt acggaataat gagttagaac tattaaaaca gccaaaactc cacagtcaat
1441 attagtaatt tcttgctggt tgaaacttgt ttattatgta caaatagatt cttataatat
1501 tatttaaatg actgcatttt taaatacaag gctttatatt tttaacttta agatgttttt
1561 atgtgctctc caaatttttt ttactgtttc tgattgtatg gaaatataaa agtaaatatg
1621 aaacatttaa aatataattt gttgtcaaag taaaaaaaaa aaaaaa

Homo sapiens interleukin 9 (IL9), mRNA.
ACCESSION NM_000590
VERSION NM_000590.1 GI:10834979
1 ccgctgtcaa gatgcttctg gccatggtcc ttacctctgc cctgctcctg tgctccgtgg
61 caggccaggg gtgtccaacc ttggcgggga tcctggacat caacttcctc atcaacaaga
121 tgcaggaaga tccagcttcc aagtgccact gcagtgctaa tgtgaccagt tgtctctgtt
181 tgggcattcc ctctgacaac tgcaccagac catgcttcag tgagagactg tctcagatga
241 ccaataccac catgcaaaca agatacccac tgattttcag tcgggtgaaa aaatcagttg
301 aagtactaaa gaacaacaag tgtccatatt tttcctgtga acagccatgc aaccaaacca
361 cggcaggcaa cgcgctgaca tttctgaaga gtcttctgga aattttccag aaagaaaaga
421 tgagagggat gagaggcaag atatgaagat gaaatattat ttatcctatt tattaaattt
481 aaaaagcttt ctctttaagt tgctacaatt taaaaatcaa gtaagctact ctaaatcagt
541 atcagttgtg attatttgtt taacattgta tgtctttatt ttgaaataaa t

Homo sapiens interleukin 10 (IL10), mRNA.
ACCESSION NM_000572
VERSION NM_000572.2 GI:24430216
1 acacatcagg ggcttgctct tgcaaaacca aaccacaaga cagacttgca aaagaaggca
61 tgcacagctc agcactgctc tgttgcctgg tcctcctgac tggggtgagg gccagcccag
121 gccagggcac ccagtctgag aacagctgca cccacttccc aggcaacctg cctaacatgc
181 ttcgagatct ccgagatgcc ttcagcagag tgaagacttt ctttcaaatg aaggatcagc
241 tggacaactt gttgttaaag gagtccttgc tggaggactt taagggttac ctgggttgcc
301 aagccttgtc tgagatgatc cagttttacc tggaggaggt gatgccccaa gctgagaacc
361 aagacccaga catcaaggcg catgtgaact ccctggggga gaacctgaag accctcaggc
421 tgaggctacg gcgctgtcat cgatttcttc cctgtgaaaa caagagcaag gccgtggagc
481 aggtgaagaa tgcctttaat aagctccaag agaaaggcat ctacaaagcc atgagtgagt
541 ttgacatctt catcaactac atagaagcct acatgacaat gaagatacga aactgagaca
601 tcagggtggc gactctatag actctaggac ataaattaga ggtctccaaa atcggatctg

Fig. 3 (cont.)

661 gggctctggg atagctgacc cagccccttg agaaacctta ttgtacctct cttatagaat
721 atttattacc tctgatacct caaccccat ttctatttat ttactgagct tctctgtgaa
781 cgatttagaa agaagcccaa tattataatt tttcaata tttattattt tcacctgttt
841 ttaagctgtt tccatagggt gacacactat ggtatttgag tgttttaaga taaattataa
901 gttacataag ggaggaaaaa aaatgttctt tggggagcca acagaagctt ccattccaag
961 cctgaccacg ctttctagct gttgagctgt tttccctgac ctccctctaa tttatcttgt
1021 ctctgggctt ggggcttcct aactgctaca aatactctta ggaagagaaa ccagggagcc
1081 cctttgatga ttaattcacc ttccagtgtc tcggagggat tcccctaacc tcattcccca
1141 accacttcat tcttgaaagc tgtggccagc ttgttattta taacaaccta aatttggttc
1201 taggccgggc gcggtggctc acgcctgtaa tcccagcact ttgggaggct gaggcgggtg
1261 gatcacttga ggtcaggagt tcctaaccag cctggtcaac atggtgaaac cccgtctcta
1321 ctaaaaatac aaaaattagc cgggcatggt ggcgcgcacc tgtaatccca gctacttggg
1381 aggctgaggc aagagaattg cttgaaccca ggagatggaa gttgcagtga gctgatatca
1441 tgcccctgta ctccagcctg ggtgacagag caagactctg tctcaaaaaa taaaaataaa
1501 aataaatttg gttctaatag aactcagttt taactagaat ttattcaatt cctctgggaa
1561 tgttacattg tttgtctgtc ttcatagcag attttaattt tgaataaata aatgtatctt
1621 attcacatc

Homo sapiens interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35) (IL12A), mRNA.

1 tttcattttg ggccgagctg gaggcggcgg ggccgtcccg gaacggctgc ggccgggcac
61 cccgggagtt aatccgaaag cgccgcaagc cccgcgggcc ggccgcaccg cacgtgtcac
121 cgagaagctg atgtagagag agacacagaa ggagacagaa agcaagagac cagagtcccg
181 ggaaagtcct gccgcgcctc gggacaatta taaaaatgtg gccccctggg tcagcctccc
241 agccaccgcc ctcacctgcc gcggccacag gtctgcatcc agcggctcgc cctgtgtccc
301 tgcagtgccg gctcagcatg tgtccagcgc gcagcctcct ccttgtggct accctggtcc
361 tcctggacca cctcagtttg gccagaaacc tccccgtggc cactccagac ccaggaatgt
421 tcccatgcct tcaccactcc caaaacctgc tgagggccgt cagcaacatg ctccagaagg
481 ccagacaaac tctagaattt taccccttgca cttctgaaga gattgatcat gaagatatca
541 caaaagataa aaccagcaca gtggaggcct gtttaccatt ggaattaacc aagaatgaga
601 gttgcctaaa ttccagagag acctctttca taactaatgg gagttgcctg gcctccagaa
661 agacctcttt tatgatggcc ctgtgcctta gtagtattta tgaagacttg aagatgtacc
721 aggtggagtt caagaccatg aatgcaaagc ttctgatgga tcctaagagg cagatctttc
781 tagatcaaaa catgctggca gttattgatg agctgatgca ggccctgaat ttcaacagtg
841 agactgtgcc acaaaaatcc tcccttgaag aaccggattt ttataaaact aaaatcaagc
901 tctgcatact tcttcatgct ttcagaattc gggcagtgac tattgataga gtgatgagct
961 atctgaatgc ttcctaaaaa gcgaggtccc tccaaaccgt tgtcattttt ataaaacttt

Fig. 3 (cont.)

1021 gaaatgagga aactttgata ggatgtggat taagaactag ggaggggaa agaaggatgg
1081 gactattaca tccacatgat acctctgatc aagtattttt gacatttact gtggataaat
1141 tgtttttaag ttttcatgaa tgaattgcta agaagggaaa atatccatcc tgaaggtgtt
1201 tttcattcac tttaatagaa gggcaaatat ttataagcta tttctgtacc aaagtgtttg
1261 tggaaacaaa catgtaagca taacttattt taaaatattt atttatataa cttggtaatc
1321 atgaaagcat ctgagctaac ttatatttat ttatgttata tttattaaat tatttatcaa
1381 gtgtatttga aaaatatttt taagtgttct aaaaataaaa gtattgaatt aaagtgaaaa
1441 aaaa

Homo sapiens interleukin 20 (IL20), mRNA.
ACCESSION NM_018724
VERSION NM_018724.2 GI:31083165
1 ctttgaattc ctagctcctg tggtctccag atttcaggcc taagatgaaa gcctctagtc
61 ttgccttcag ccttctctct gctgcgtttt atctcctatg gactccttcc actggactga
121 agacactcaa tttgggaagc tgtgtgatcg ccacaaacct tcaggaaata cgaaatggat
181 tttctgagat acggggcagt gtgcaagcca aagatggaaa cattgacatc agaatcttaa
241 ggaggactga gtctttgcaa gacacaaagc ctgcgaatcg atgctgcctc ctgcgccatt
301 tgctaagact ctatctggac agggtattta aaaactacca gacccctgac cattatactc
361 tccggaagat cagcagcctc gccaattcct ttcttaccat caagaaggac ctccggctct
421 gtcatgccca catgacatgc cattgtgggg aggaagcaat gaagaaatac agccagattc
481 tgagtcactt tgaaaagctg gaacctcagg cagcagttgt gaaggctttg ggggaactag
541 acattcttct gcaatggatg gaggagacag aataggagga aagtgatgct gctgctaaga
601 atattcgagg tcaagagctc cagtcttcaa tacctgcaga ggaggcatga ccccaaacca
661 ccatctcttt actgtactag tcttgtgctg gtcacagtgt atcttattta tgcattactt
721 gcttccttgc atgattgtct ttatgcatcc ccaatcttaa ttgagaccat acttgtataa
781 gatttttgta atatctttct gctattggat atatttatta gttaatatat ttatttattt
841 tttgctattt aatgtattta ttttttttact tggacatgaa actttaaaaa aattcacaga
901 ttatatttat aacctgacta gagca

Fig. 3 (cont.)

DEFINITION Kaposi's sarcoma-associated herpesvirus latent nuclear antigen gene, partial cds.
ACCESSION AF305694
VERSION AF305694.1 GI:11037007

1 agaccagatt tcccgaggat ggcgcccccg ggaatgcgcc tgaggtcggg acggagcacc
61 ggcgcgccct taacgagagg aagttgtagg aaacgaaaca ggtctccgga aagatgtgac
121 cttggcgatg acctacatct acaaccgcga aggaagcatg tcgccgactc cgtcgacggc
181 cgggaatgtg gaccccacac cttgcctata ccaggaagtc ccacagtgtt cacatccggg
241 ctgccagcat ttgtgtctag tcctacttta ccggtggctt ccattccttc acccgctccc
301 gcaacacctt tacctccacc ggcactctta ccccccgtaa ccacgtcttc ctccccaatc
361 cctccatccc atcctgtgtc tccggggacc acggatactc attctccatc tcctgcattg
421 ccacccacgc agtctccaga gtcttctcaa aggccaccgc tttcaagtcc tacaggaagg
481 ccagactctt caacacctat gcgtccgcca ccctcgcagc agactacacc tccacactca
541 cccacgactc ctccacccga gcctccctcc aagtcgtcac cagactcttt agctccgtct
601 accctgcgta gcctgagaaa aagaaggcta tcgtcccccc aaggtccctc tacactaaac
661 ccaatatgtc agtcgccccc agtctctccc cctagatgtg acttcgccaa ccgtagtgtg
721 taccccccat gggccacaga gtccccgatc tacgtgggat catccagcga tggcgatact
781 ccgccacgcc aaccgcctac atctcccatc tccataggat catcatcccc gtctgaggga
841 tcctcgggtg atgacacagc catgttggtg ctccttgcgg agattgcaga agaagcatcc
901 aagaatgaaa aagaatgttc cgaaaataat caggctggcg aggataatgg ggacaacgag
961 attagcaagg aaagtcaggt tgacaaggat gacaatgaca ataaggatga tgaggaggag
1021 caggagacag atgaggagga cgaggaggat gacgaggagg atgacgagga ggatgacgag
1081 gaggatgacg aggaggatga cgaggaggat gacgaggagg atgacgagga ggatgacgag
1141 gaggatgacg aggaggatga cgaggaggat gacgaggagg atgacgagga ggaggacgag
1201 gaggaggacg aggaggagga cgaggaggag gaggacgagg aggaggagga ggacgaggag
1261 gatgacgatg atgaggacaa tgaggacgag gaggatgacg aggaggagga caagaaggag
1321 gacgaggagg acgggggcga tggaaacaaa acgttgagca tccaaagttc acaacagcag
1381 caggagccac aacagcagga gccacagcag caggagccac aacagcagga gccacagcag
1441 caggagccac agcagcagga gcccctgcag gagccacaac agcaggagcc acagcagcag
1501 gagccacaac agcaggagcc acagcagcag gagcccctgc aggagccaca gcagcaggag
1561 ccacagcagc aggagccaca gcagcaggag ccacaacagc aggagccaca gcagcaggat
1621 gagcagcagc aggatgagca gcagcaggat gagcagcagc aggatgagca gcagcagcag
1681 gatgagcagc agcaggatga gcagcagcag gatgagcagc agcaggatga gcaggagcag
1741 caggatgagc agcagcagga tgagcagcag cagcaggatg aacaggagca gcaggaggag
1801 caggagcagc aggaggagca ggagcaggag ttagaggagc aggagcagga gttagaggag
1861 caggagcagg agttagagga gcaggagcag gagttagagg agcaggagca ggagttagag
1921 gagcaggagc aggagttaga ggagcaggag caggagttag aggagcagga gcaggagtta
1981 gaggagcagg agcaggagtt agatgagcag gagcaggagt tagaggagca ggagcaggag
2041 ttagaggagc aggagcagga gttagaggag caggagcagg agttagagga gcaggagcag
2101 gagttagagg agcaggagca ggagttagag gagcaggagc aggagttaga ggagcaggag

Fig. 3 (cont.)

2161 caggagttag aggagcagga gcaggagtta gaggagcagg agcaggagca ggagttagag
2221 gaggtggaag agcaagagca ggagcaggaa gagcaggaat tagaggaggt ggaggagcaa
2281 gagcaggagc aggaggagca ggaggagcag gagttagagg aggtggaaga gcaggaagag
2341 caggagttag aggaggtgga agagcaggaa gagcaggagt tagaggaggt ggaagagcag
2401 gagcagcagg gggtggaaca gcaggagcag gagacggtgg aagagcccat aatcttgcac
2461 gggtcgtcat ccgaggacga aatggaagtg gattaccctg ttgttagcac acatgaacaa
2521 attgccagta gcccaccagg agataataca ccagacgatg acccacaacc tggcccatct
2581 cgcgaatacc gctatgtact cagaacatca ccaccccaca gacctggagt tcgtatgagg
2641 cgcgttccag ttacccaccc aaaaaagcca catccaagat accaacaacc accggtccct
2701 tacagacaga tagatgattg tcctgcgaaa gctaggccac aacacatctt ttatagacgc
2761 tttttgggaa aggatggaag acgagatcca aagtgtcaat ggaagtttgc agtgattttt
2821 tggggcaatg acccatacgg acttaaaaaa ttatctcagg ccttccagtt tggaggagta
2881 aaggcaggcc ccgtgtcctg cttgccccac cctggaccag accagtcgcc cataacttat
2941 tgtgtatatg tgtattgtca gaacaaagac acaagtaaga aagtacaaat ggcccgccta
3001 gcctgggaag ctagtcaccc cctggcagga aacctacaat cttccatagt taagtttaaa
3061 aagcccctgc cattaaccca gccaggggaa aaccaaggtc ctggggactc tccacaggaa
3121 atgacat

Human herpesvirus 8 ORF73 gene, complete cds.
ACCESSION AF360120
VERSION AF360120.1 GI:13936995
1 atggcgcccc cgggaatgcg cctgaggtcg ggacggagca ccggcgcgcc cttaacgaga
61 ggaagttgta ggaaacgaaa caggtctccg gaaagatgtc accttggcga tgacctacat
121 ctacaaccgc gaaggaagca tgtcgccgac tccgtcgacg gccgggaatg tggaccccac
181 accttgccta taccaggaag tcccacagtg ttcacatccg ggctgccagc atttgtgtct
241 agtcctactt taccggtggc tcccattcct tcacccgctc ccgcaacacc tttacctcca
301 ccggcactct taccccccgt aaccacgtct tcctccccaa tccctccatc ccatcctgtg
361 tctccgggga ccacggatac tcattctcca tctcctgcat tgccacccac gcagtctcca
421 gagtcttctc aaaggccacc gctttcaagt cctacaggaa ggccagactc ttcaacacct
481 atgcgtccgc caccctcgca gcagactaca cctccacact cacccacgac tcctccaccc
541 gagcctccct ccaagtcgtc accagactct ttagctccgt ctaccctgcg tagcctgaga
601 aaaagaaggc tatcgtcccc ccaaggtccc tctacactaa acccaatatg tcagtcgccc
661 ccagtctctc cccctagatg tgacttcgcc aaccgtagtg tgtacccccc atgggccaca
721 gagtccccga tctacgtggg atcatccagc gatggcgata ctccgccacg ccaaccgcct
781 acatctccca tctccatagg atcatcatcc ccgtctgagg gatcctgggg tgatgacaca
841 gccatgttgg tgctccttgc ggagattgca gaagaagcat ccaagaatga aaaagaatgt
901 tccgaaaata atcaggctgg cgaggataat ggggacaacg agattagcaa ggaaagtcag
961 gttgacaagg atgacaatga caataaggat gatgaggagg agcaggagac agatgaggag
1021 gacgaggagg atgacgagga ggatgacgag gaggatgacg aggaggatga cgaggaggat

Fig. 3 (cont.)

1081 gacgaggagg atgacgagga ggatgacgag gaggatgacg aggaggagga cgaggaggag
1141 gacgaggagg aggaggacga ggaggaggag gaggaggacg aggaggatga cgatgatgag
1201 gacaatgagg acgaggagga ggacaagaag gaggacgagg aggacggggg cgatggaaac
1261 aaaacgttga gcatccaaag ttcacaacag cagcaggagc cacagcagca ggagccacaa
1321 cagcaggagc cacagcagca ggagccacag cagcaggagc ccctgcagga gccacagcag
1381 caggagccac aacagcagga gccacaacag caggagccac aacagcagga gccacaacag
1441 caggagccac aacagcagga gccacagcag caggatgagc agcagcagga tgagcagcag
1501 caggatgagc agcagcagga tgagcagcag caggatgagc aggagcagca ggatgagcag
1561 cagcaggatg agcagcagca ggatgagcag cagcagcagg atgaacagga gcagcaggag
1621 gagcaggagc agcaggagga gcaggagcag caggaggagc aggagcagga gttagaggag
1681 caggagcagg agttagagga gcaggagcag gagttagagg agcaggagca ggagttagag
1741 gagcaggagc aggagttaga ggagcaggag caggagttag aggagcagga gcaggagtta
1801 gaggagcagg agcaggagtt agaggagcag gagcaggagt tagaggagca ggagcaggag
1861 ttagaggagc aggagcagga gttagaggag caggagcagg agttagagga gcaggagcag
1921 gagttagagg agcaggagca ggagttagag gagcaggagc aggagttaga ggagcaggag
1981 caggagttag aggagcagga gcaggagtta gaggagcagg agcaggagtt agaggagcag
2041 gagcaggagt tagaggagca ggagcaggag ttagaggagc aggagcagga gcaggagtta
2101 gaggaggtgg aagagcaaga gcaggagcag gaagagcagg aattagagga ggtggaggag
2161 caagagcagg agcaggagga gcaggaggag caggagttag aggaggtgga agagcaggaa
2221 gagcaggagt tagaggaggt ggaagagcag gaagagcagg agttagagga ggtggaagag
2281 caggagcagc agggggtgga acagcaggag caggagacgg tggaagagcc cataatcttg
2341 cacgggtcgt catccgagga cgaaatggaa gtggattacc ctgttgttag cacacatgaa
2401 caaattgcca gtagcccacc aggagataat acaccagacg atgacccaca acctggccca
2461 tctcgcgaat accgctatgt actcagaaca tcaccacccc acagacctgg agttcgtatg
2521 aggcgcgttc cagttaccca cccaaaaaag ccacatccaa gataccaaca accaccggtc
2581 ccttacagac agatagatga ttgtcctgcg aaagctaggc cacaacacat cttttataga
2641 cgctttttgg gaaaggatgg aagacgagat ccaaagtgtc aatggaagtt tgcagtgatt
2701 ttttggggca atgacccata cggacttaaa aaattatctc aggccttcca gtttggagga
2761 gtaaaggcag gccccgtgtc ctgcttgccc caccctggac cagaccagtc gcccataact
2821 tattgtgtat atgtgtattg tcagaacaaa gacacaagta agaaagtaca aatggcccgc
2881 ctagcctggg aagctagtca ccccctggca ggaaacctac aatcttccat agttaagttt
2941 aaaaagcccc tgccattaac ccagccaggg gaaaaccaag gtcctgggga ctctccacag
3001 gaaatgacat aa

Kaposi's sarcoma-associated herpesvirus v-cyclin gene, complete cds.
ACCESSION U79416
VERSION U79416.1 GI:1711134
1 atggcaactg ccaataaccc gccctcggga cttctggatc ccacgctatg tgaggatcgg
61 atcttttaca atattcttga aattgagccg cgcttttaa cttctgactc tgtatttggg
121 tcctttcaac aatctcttac ttcgcatatg cgtaagttac tgggcacatg gatgttttca

Fig. 3 (cont.)

181 gtttgccagg aatacaacct agaacctaac gtggtcgcgt tggcccttaa tcttttggac
241 agactcctac ttataaagca ggtgtccaaa gaacactttc aaaagacagg gagcgcctgc
301 ctgttagtgg ccagtaagct cagaagcctc acgcctattt ctaccagttc actttgctat
361 gccgcggcag actccttttc ccgccaagaa cttatagacc aggagaaaga actccttgag
421 aagttggcgt ggcgaacaga ggcagtctta gcgacggacg taacttcctt cttgttactt
481 aaattgctgg ggggctccca acacctggac ttttggcacc acgaggtcga caccctgatt
541 acaaaagcct tagttgaccc aaagactggc tcattgcccg cctctattat cagcgctgca
601 ggctgtgcgc tgttggttcc tgccaacgtc attccgcagg atacccactc gggtggggta
661 gttcctcagc tggcaagcat attgggatgc gatgtttccg ttctacaggc ggcagtggaa
721 cagatcctaa catctgtttc ggactttgat ctgcgcattc tggacagcta ttaa

Fig. 3 (cont.)

Epstein-Barr virus nuclear antigen (EBNA1) mRNA, 5' end.
ACCESSION M13941
VERSION M13941.1 GI:330399

1 ttagagagtg gctgctacgc attagagacc actttgagcc acccacagta accacccagc
61 gccaatctgt ctacatagaa gaagaagagg atgaagacta agtcacaggc ttagccagta
121 acccagcact ggcgtgtgac gtggtgtaaa gttttgcctg aacctgtggt tgggcaggta
181 acttaggaag cgtttcttga gcttccctgg gatgagcgtt tgggagagct gattctgcag
241 cccagagagt agtctcaggg catcctctgg agcctgacct gtgatcgtcg catcatagac
301 cgccagtaga cctgggagca gattcaccgc cgcggccgtc tcctttaagt gtgaatcatg
361 tctgacgagg ggccaggtac aggacctgga aatggcctag gagagaaggg agacacatct
421 ggaccagaag gctccggcgg cagtggacct caaagaagag ggggtgataa ccatggacga
481 ggacggggaa gaggacgagg acgaggaggc ggaagaccag gagccccggg cggctcagga
541 tcagggccaa gacatag

Epstein-Barr Virus LMP1 gene.
ACCESSION X66863 S48740
VERSION X66863.1 GI:59181

1 aatccgccac ctcattctga aattcccata tcccccgtct gctgcttcgt cacccgccga
61 cccttagccc tctatccgcc tcacccgcct cccctacggt taccccacag ccttgcctca
121 cctgaacccc cctaaagcac agcctcccgc ctgccgacaa cgacctccca acgttgcgcg
181 ccctacgcct ctttgtgtgg attacactgc cgcttcccac aacactgctc actccccctt
241 gtgattgccg cactgccttt ccatttccct gtacgcttta ccaccgcatt cccacagctt
301 gcccctcggg gactcgcttt tctaacacaa acacacgctt tctacttcct cttttaacgc
361 ttacatgcac acacactacg cgctttcggg aaagcggcgc ccgtaccctg tccggcagac
421 cccgcaaatc cccccgggcc tccatcccca gaaacacgcg ttactctctc gtaggcggcc
481 tacataagcc tctgtcactg ctctgtcagc ttctttcctc agttgccttg ctcctgccac
541 actaccctga ccatggaacg cgaccttgag aggggcccac cgggcccgcc acggcccccc
601 ctaggacccc ccctctcctc ttccataggc cttgctctcc ttctcctgct cttggcgcta
661 ctgttctggc tgtatatcgt tatgagtaac tggactggag gagcgctcct tgtcctctat
721 tcctttgctc tcatgcttat tattatcatt ctcatcatct ttatcaacag aagagacctt
781 ctctgtccac ttggaggcct tggtctactc ctactgatga gtaagtatta cacccttgc
841 cccccacccc ctttccctta cgcttccttc tctaacgcac tttctcctct ttccccagtc
901 accctcctac tcatcgctct ctggaatttg cacggacagg cattgtacct tggaattgtg
961 ctgttcatct ttggctgctt acttggtaag atctaacatt ccctaggact tatttaccac
1021 accctcacct ttccagccct aacactcttt tttcaacgca gtcttaggtc tctggatcta
1081 cttggagatt ctctggcggc ttggtgccac catctggcag cttttggcct tcatcctagc
1141 cttcttccta gccatcatcc tgcttattat tgctctctat ctacaacaaa actggtggac
1201 tctattggtt gatctccttt ggctcctcct gtttatggcc attttaatct ggatgtatta
1261 tcatggacca cgacacactg atgaacacca ccacgatgac tccctcccgc accctcaaca

Fig. 3 (cont.)

1321 agctaccgtc gattctagcc atgaatctga ctctaactcc aacgagggca gacaccacct
1381 gctcgtgagt ggggccggcg acggaccccc actctgctct caaaacctag gcgcacctgg
1441 aggtggtcct gacaatggcc cacaggaccc tgacaacact gatgacaatg gcccacagga
1501 ccctgacaac actgatgaca atggcccaca ggaccctgac aacactgatg acaatggccc
1561 acaggaccct gacaacactg atgacaatgg cccacaggac cctgacaaca ctgatgacaa
1621 tggcccacat gacccgctgc ctcataaccc tagcgactct gctggaaatg atggaggccc
1681 tccaaaattg acggaagagg ttgaaaacaa aggaggtgac cggggcccgc cttcgatgac
1741 agacggtggc ggcggtcatc cacaccttcc tacactgctt ttgggtactt ctggttccgg
1801 tggagatgat gacgaccccc acggcccagt tcagctaagc tactatgact aacctttctt
1861 tacttctagg cattaccatg tcataggctt gcctgactga ctctccctcc atttactggg
1921 aatgccttag ctaatcacct taactggcac acactccctt agccacactg tctgtctagg
1981 ctgaaaagcc acattcatat tctatttcaa aacaagggga aggaggacat a

Epstein-Barr virus latent membrane protein 2A (LMP 2A) mRNA, complete cds.
ACCESSION M87778
VERSION M87778.1 GI:330384
1 ccaatgggcg cgggtccccc tagccccggc ggggatccgg atggggacga tggcggaaac
61 aactcccaat atccatctgc ttctggctct tctgggaaca cccccacccc accgaacgat
121 gaggaacgtg aatctaatga agagccccca ccgccttatg aggacctaga ttggggcaat
181 ggcgaccgtc actcggacta tcaaccacta ggaaaccaag atccaagttt gtacttggga
241 ttgcaacacg acgggaatga cgggctccct ccccctccct actctccacg ggatgactca
301 tctcaacaca tatacgaaga agcgggcaga ggaagtatga atccagtatg c
//
Epstein-Barr virus latent membrane protein 2A (LMP 2A) mRNA, complete cds.
ACCESSION M87777
VERSION M87777.1 GI:330382
1 actatggggt ccctagaagt gatgccaatg ggcgcgggtc cccctagccc cggcggggat
61 ccggatgggg acgatggcgg aaacaactcc caatatccat ctgcttctgg ctcttctggg
121 aacaccccca ccccaccgaa cgatgaggaa cgtgaatcta atgaagagcc cccaccgcct
181 tatgaggact cagattgggg caatggcgac cgtcactcgg actatcaacc actaggaaac
241 caagatccaa gtttgtactt gggattgcaa cacgacggga atgacgggct ccctcccccc
301 ccctactctc cacgggatga ctcatctcaa cacatatacg aagaagcggg cagaggaagt
361 atgaatccag tatgcctgct tgtaattgtt gcgccctacc tgttttggct ggcggctatt
421 gccgcctcgt gtttcacggc ctcagttagt accgttgtga ccgccaccgg cttggccctc
481 tcacttttac tcttggcagc agtggccagc tcatatgccg ctgcacaaag gaaactgctg
541 acaccggtga cag

Fig. 3 (cont.)

Epstein-Barr virus (EBV) genome, strain B95-8.
ACCESSION V01555 J02070 K01729 K01730 V01554 X00498 X00499 X00784
VERSION V01555.1 GI:59074

1 agaattcgtc ttgctctatt cacccttact tttcttcttg cccgttctct ttcttagtat
61 gaatccagta tgcctgcctg taattgttgc gccctacctc ttttggctgg cggctattgc
121 cgcctcgtgt ttcacggcct cagttagtac cgttgtgacc gccaccggct tggccctctc
181 acttctactc ttggcagcag tggccagctc atatgccgct gcacaaagga aactgctgac
241 accggtgaca gtgcttactg cggttgtcac ttgtgagtac acacgcacca tttacaatgc
301 atgatgttcg tgagattgat ctgtctctaa cagttcactt cctctgcttt tctcctcagt
361 ctttgcaatt tgcctaacat ggaggattga ggacccacct tttaattctc ttctgtttgc
421 attgctggcc gcagctggcg gactacaagg catttacggt tagtgtgcct ctgttatgaa
481 atgcaggttt gacttcatat gtatgccttg gcatgacgtc aactttactt ttatttcagt
541 tctggtgatg cttgtgctcc tgatactagc gtacagaagg agatggcgcc gtttgactgt
601 ttgtggcggc atcatgtttt tggcatgtgt acttgtcctc atcgtcgacg ctgttttgca
661 gctgagtccc ctccttggag ctgtaactgt ggtttccatg acgctgctgc tactggcttt
721 cgtcctctgg ctctcttcgc caggggggcct aggtactctt ggtgcagccc ttttaacatt
781 ggcagcaggt aagccacacg tgtgacattg cttgcctttt tgccacatgt tttctggaca
841 caggactaac catgccatct ctgattatag ctctggcact gctagcgtca ctgattttgg
901 gcacacttaa cttgactaca atgttccttc tcatgctcct atggacactt ggtaagtttt
961 cccttccttt aactcattac ttgttctttt gtaatcgcag ctctaacttg gcatctcttt
1021 tacagtggtt ctcctgattt gctcttcgtg ctcttcatgt ccactgagca agatccttct
1081 ggcacgactg ttcctatatg ctctcgcact cttgttgcta gcctccgcgc taatcgctgg
1141 tggcagtatt ttgcaaacaa acttcaagag tttaagcagc actgaattta tacccagtga
1201 gtatctattt gttactcctg tttagttgaa gaaaacaagc tattggattg taacacacat
1261 tttacgcttt gttccttaga tttgttctgc atgttattac tgattgtcgc tggcatactc
1321 ttcattcttg ctatcctgac cgaatggggc agtggaaata gaacatacgg tccagttttt
1381 atgtgcctcg gtggcctgct caccatggta gccggcgctg tgtggctgac ggtgatgtct
1441 aacacgcttt tgtctgcctg gattcttaca gcaggattcc tgattttcct cattggtaag
1501 tgtgacacca acaggtgttg ccttgttatg tcaccgttct gacacatgac ttacatgggt
1561 ttggcttttg taggctttgc cctctttggg gtcattagat gctgccgcta ctgctgctac
1621 tactgcctta cactggaaag tgaggagcgc ccaccgaccc catatcgcaa cactgtataa
1681 aggtaagtat tattaaattt tagagacact atcacgtgta acttgacgtg caaggatgga
1741 agagaggggc agggaaacgc aaatgccggt tgcccggtat gggggcccgt ttattatggt
1801 aaggctcttc gggcaagatg gagaggcaaa catacaggag gaaaggctat atgagctact
1861 ctctgaccca cgctccgcgc tcggcctaga cccggggccc ctgattgctg agaacctgct

Fig. 3 (cont.)

1921 gctagtggcg ctgcgtggca ccaacaacga tcccaggcct cagcgtcagg agagggccag
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2041 ggagagtgcc ctggaggcct caggcaacaa ctatgtgtat gcctacggac cagactggat
2101 ggcaaggcct tccacatggt ccgcggaaat ccagcaattc ctgcgactcc tgggcgccac
2161 gtacgtgctt cgcgtggaga tgggcaggca gtttggcttc gaggtgcata gaagccggcc
2221 ctccttccgt cagttccagg ccatcaatca ccttgtcctg tttgacaacg cccttcgcaa
2281 gtacgattcc ggccaggtgg cggcgggctt ccagagggcc cttctggtgg ccgggccaga
2341 gaccgctgac acgaggccgg acctccgcaa gctgaatgag tgggtgtttg gtggcagggc
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2521 ggacacacga accgctcata gtttggagca cggattcatt catgccgcgg ggaccatcca
2581 ggccaactgc ccacagctgt ttatgagacg ccagcacccc ggcctctttc ccttcgttaa
2641 tgcaatagca tcatcgctgg gctggtacta ccagaccgcc accggccccg gagcagatgc
2701 cagggcggcg gcccggcgcc aacaggcctt tcagaccagg gcggcggctg aatgccatgc
2761 caaaagcggg gtgccggtcg tggccggctt ctacaggacc atcaacgcca cgctcaaggg
2821 aggagagggc ctacagccca ctatgtttaa cggggagctg ggggccatca agcaccaggc
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2941 atggagcgga ctgacggccc ctccgtgccc ctacgccgaa agttcatggg cacaggcggc
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3361 gggctccacg gttcccctcg gtggactcaa ctttgtcaac gacctggcgt ccccggtttc
3421 caccgccgag atgatggatg atttctctcc cttcttcacc gtggagtttc ccccgattca
3481 agaggagggc gcaagttctc cggtaccctt agatgtggac gagagcatgg acatctctcc
3541 gtcttacgag ttgccctggc tctcgctgga gtcatgcctc acaagcatcc tgtcacaccc
3601 caccgtggga agcaaggagc acttggtcag gcacacggac agggtcagcg gaggacgcgt
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3841 aggtaccgtg attacattgg gagaacaggg gtacaaagtg tcgttggatc tgagggaggg
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4141 ggcctctgtc tccgccccag gggaattctc gggtcctctg atcacgccag tgcttcagaa
4201 gacgggcagt ctcctgattg cggtgcgttg cggggatggc aagatccagg gagggtcgct

Fig. 3 (cont.)

4261 gtttgagcag ctctttagcg acgtggccac gaccccacgg gcacccgagg cgttgtctct
4321 gaagaatctc ttccgggcag tccagcagct ggtcaagagc ggcatcgtgc tgtcagggca
4381 tgacatcagc gacgggggcc tggtgacctg cctggtggag atggccctgg ccgggcagcg
4441 gggagtgacc atcactatgc cggtggcctc cgactacctc ccggagatgt ttgcagagca
4501 ccccggcctg gtgtttgagg tggaggagcg cagcgtgggt gaggtgctgc agaccctgcg
4561 ctccatgaac atgtacccgg cagtcctcgg tcgagtgggc gagcaaggtc cagatcaaat
4621 gtttgaggtg cagcacggcc cagagacggt gttgcgccag tcgctgcgcc tgctgctggg
4681 aacctggtca tcctttgcca gcgagcagta cgagtgcctg cgaccagatc ggattaaccg
4741 gtccatgcac gtgtccgact acggctataa cgaagcactg gcagtctccc cgttgacagg
4801 aaagaatctc agcccacgcc ggttggtgac agagcctgac ccacgatgtc aggtggccgt
4861 gctatgcgcc ccgggcacca ggggccatga aagcctcctg gcggccttca cgaatgccgg
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6481 cgaccgcgcc accagatggc acacgtgggg gaaatgaggg ttagcatagg caacccccgc
6541 ctacacacca actatagcaa accccgcccc gtcacggtga cgtagtctgt cttgaggaga

Fig. 3 (cont.)

6601 tgtagacttg tagacactgc aaaacctcag gacctacgct gccctagagg ttttgctagg
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6721 gtgtctgtgg ttgtcttccc agactctgct ttctgccgtc ttcggtcaag taccagctgg
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6901 accgtgacgt agctgtttac cagcatgtat agagttacgg ttcgctacat caaacaggac
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7021 aggtcaagtc ccgggggagg agaagagagg cttcccgcct agagcatttg caagtcagga
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8761 ggcgtcacct gaaaccttgt tttcgagcac ctcacataca ccttactgtt cacaactcag
8821 cagttattct attagctaaa cgaaggagaa tgaagaagca ggcgaagatt caggagagtt
8881 cactgcccgc tccttgatct tcagccactg cccttgtgac taaaatggtt cactaccctc

Fig. 3 (cont.)

8941 gtggaatcct gaccccatgt aaataaaacc gtgacagctc atggggtggg agatatcgct
9001 gttccttagg acccttttac taaccctaat tcgatagcat atgcttcccg ttgggtaaca
9061 tatgctattg aattagggtt agtctggata gtatatacta ctacccggga agcatatgct
9121 acccgtttag ggttaacaag ggggccttat aaacactatt gctaatgccc tcttgagggt
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9301 tacacataaa ggcaatgttg tgttgcagtc cacagactgc aaagtctgct ccaggatgaa
9361 agccactcag tgttggcaaa tgtgcacatc catttataag gatgtcaact acagtcagag
9421 aacccctttg tgtttggtcc ccccccgtgt cacatgtgga acagggccca gttggcaagt
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Fig. 3 (cont.)

11281 ctaaggggg gactaaggtc ccactacaaa aactctgtgt tctgctgcaa attttagatc
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11461 cccacaaatc atctaaaccg taagtctaag ggcctcctga ggttttctca ggaggcccta
11521 atgtataatt aatcatgcat ttgattttaa aaaagtaggt tacactcatt ttaggccaga
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11701 gtcataaacc cacttccctt tacatgaatc tgggcactga attttggggt acttctaaag
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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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69601 gctgcccgaa gggaggtgat ggggatatct ccgttccagc cctgtcagcg gccgggggat
69661 ggtttttttc tggttcgagt gtcgtggctg atggtgggag ctgctgagca ggaggaggag
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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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79561 cggtggaggt agagactgcc ttcatcgagg ctcgtggaga gggggttacc ttggtggatg
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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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134821 cctgatcatg cccacggtgg ggcggaggtc ggagatctcc agcagatccc tgagcgtccc
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135121 gtagccgtac aaggccacaa attgggcagc catctcatcc atgtttccaa ccctctcaat
135181 aaactggggc gcggccaggg tgtcagcgta aacctcattt ccgataataa tctgggggggc
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Fig. 3 (cont.)

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135781 agccctgtgc ctggccctct ccccggcatc cctgccaatg taaatatcat aaaggggtg
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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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160921 agggcccgtt ccaggctctc cagccccatg gtgtgagaca tgcaataaaa cacgctattg
160981 attctcttca ttaaaatctc tatgtcattt attaggcaca aacttacatc gactttatgc

Fig. 3 (cont.)

161041 cccccgtaaa actccacaga gtacgcgact gaggggtac ggagaggcgg gacccgggta
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161161 accagctcca gggacagggc gctgcatgca cggtcattct gccgtctcaa acggggaagg
161221 aggatggcct ccagctcggc cagcaggccg gcgttgcgca ccaccgcagc cacgtccaga
161281 ctccgggggt ccagccgggt gcacacgctc agctcaaccg ccagggcgta cacctggctg
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161401 ggagaacggt ggccagacgg cgcttgcgtc tgcccccgga gccctgccct cctccaccca
161461 gcagcagccc ggccgaggcc tgcgacgcgg tgctgaccgg ctcggccacg ctgataaagt
161521 tgtcctgggc tgccccgggc ccaccccaca ctccctccag aaagtcccga gcggcctccg
161581 ccgtccactc tatcccgctg gaggcaatgg tcgccagggt ttctaggacg ctgtccgcca
161641 ggacggagaa gcggcccaat aagtactccg cgtcgtccct agtcagcgag gcgcatgcct
161701 cgcccatggc atccacaagg ttgcacacca catcaaacac acagtcttcc tcctgttttt
161761 gtgatataat ggcctccagg ccagccctga tgttctcaat ctcatatgtg gtcgcggctt
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161881 tggaagagcc cccggcctgc ttgcgcagcc cagccccggg ggcctgcagc aggttcctgt
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162061 cctggctaag acagtctgtg gccgcgcaga ccaccgtggt cgcagtaagg gaggaggtgg
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162181 gggcgggcac cgactgcgtc ctcggcacca gtccctgaat caggctgatg tagaactggg
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162421 gcctggaaaa gttgtgccac aggtacaggc ttgagagctt agtgtccggg aatagggtct
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162841 gcccggggtt gtcattctca tagcacatac agatgggcag ggagatgtcc tgcaggatgg
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163261 ccaaaaagtc cgtctcgttg taggagcccg aggcccccga gatcacatag gggtccctcc
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Fig. 3 (cont.)

163381 acacggccgg ggcccggccc tcgcagagcg agcacatggg actggcggcc gcccccgcca
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163501 ggtagtaggc atagcgggca agaaggttgg gcgagaagga ggccgcatag accaggtgct
163561 ccacagcgta gtttcccgga ccgttggttc cggtcacgtc tggcccaccc cagcccgaga
163621 agcagggtcg gcggcagggg tcccaggtcc cctcctgcag ggtccccagg ccgtgggtca
163681 tgtagaaact gttaaagaga ctctccttgc cctgaccggt tgacttcgag acccccgaga
163741 cgtagaggac ggaattggtg gcaaagatct gcgtggacac gtgggggccc aggctggcat
163801 tatatcggtg taacgcagcc acacgggcct ctggaccctc acagtcggca aacaggggcc
163861 acgagtcgta gttgaggctg gccggggtct cgtgcgaggc ctccagcatg gcgggtgcgt
163921 agctcaccgc cagctcgcat gccgcgctgt ccacaatcat taaggctccc gagtccgggt
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165541 cctgtgtggc cgccggccag gctgtcaccg ctttcttggg tgagcgagtc accctgacct
165601 cctactggag gagggtgagc ctcggtccag agattgaggt cagctggttt aaactgggcc
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Fig. 3 (cont.)

165721 ctttcagggg cttctttgat atccacagaa gtgccaacac cttcttttta gtagtcaccg
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165841 tcaccaagca ggaacacctg agcgtggtga agcctctaac gctgtctgtc cactccgaaa
165901 ggtctcagtt cccagacttc tctgtcctta ctgtgacatg caccgtgaat gcatttcccc
165961 atccccacgt ccagtggctc atgcccgagg gcgtggagcc cgcaccaact gcggcaaatg
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Fig. 3 (cont.)

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168181 aactgggccg tgggggtcgt catcatctcc accggaacca gaagaaccca aaagcagcgt
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168361 agggcctcca tcatttccag cagagtcgct agggctatga ggcagcgggt catgtgggcc
168421 attgtcatca gtgttgtcag ggtcctgtgg gccattgtca tcagtgttgt cagggtcctg
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Fig. 3 (cont.)

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Fig. 3 (cont.)

Human herpesvirus 8, genome

Accession: NC_003409

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1681 taatgaagga tatactctag ttggaccaca ttccattgca tgtgcagtta ataacacgtg
1741 gacatctaac atgccaacct gtgaactcgc aggctgtaaa tttccatcgg tgactcatgg
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1861 caatgatgga tttgttctca gaggatcccc cacaattacg tgtaacgtta ctgaatggga
1921 cccaccactt cctaagtgtg ttttggaaga tatagatgat ccaaacaatt caaatcctgg
1981 acgtttgcat ccaacaccca atgaaaaacc aaatggtaat gtctttcaac gctcaaacta
2041 tacagaacct ccaacaaagc ctgaagacac ccatacagca gctacttgtg ataccaactg
2101 tgaacagcca cctaaaatcc tgccaacatc cgaaggtttt aatgagacta ccacatctaa

Fig. 3 (cont.)

2161 tacaattaca aaacaattag aggatgagaa aactatatcc cagccaaata cacatattac
2221 atctgcctta acatccatga aagcgaaagg taactttacc aacaagacca ataactctac
2281 tgatctacat atagcgtcta cacccacttc ccaagatgat gctacgcctt caatacctag
2341 tgtacagaca cccaattata atactaacgc accgacacgt acactaacgt ctctccatat
2401 tgaagaaggc ccatccaatt ctactacttc agaaaaggcc acttcctcta ctctctcaca
2461 caactcacac aaaaatgaca ccggaggcat atacacaaca ttaaacaaaa caacacagtt
2521 gccatccact aataaaccta caaacagtca agccaagagt tccactaagc cacgcgttga
2581 gacacacaat aaaacaacca gtaatcctgc catttcttta acagattctg cagatgtgcc
2641 tcagagaccg cgagaaccaa cactccctcc cattttcagg ccaccggcgt ctaaaaatcg
2701 ctatctggaa aagcaactag ttattggact actaaccgct gtcgccctaa cgtgtggact
2761 gattacctta tttcactatc tgttctttcg ttagcctaga acttgctcca gtgttagaca
2821 gggctatgat tgcttctcca cgctgtccac cttaacactt cccaataaca aatccggtat
2881 gcagcagcgt gacactacta atgtaaccta aaaaatgtgc atgtggtatg tattgtacta
2941 aagataccga ccaatacaag acaactaata ttaaccatag tgtgcgtttc tttgtataaa
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3301 acaacttccc cataggggaa gcctccctgc tgggcaatgg ctacccggag gcaaaagtat
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4081 cctttattga gggaccccag gatagctgcg aggttctaaa ttatgacacg tggcccatct
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4381 tcaagggcgt gccagtgtct gcactggatg ggtcatctta caccctccag cacctggcct
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Fig. 3 (cont.)

4501 cccaccataa aaacaccaac agtcagtcat acaatgtggt ggactacgtg ggcaccgcgg
4561 cacctagtca aatgtgtgac ctgtgtcagg ggcaatgtcc agctgtatgc atcaacacgc
4621 tgttttacag gatgaaggac aggttcccac ctgttctgtc aaacgttaag agagacccat
4681 atgtgatcac gggcacagcg ggaacgtaca atgacctaga gattctcgga aactttgcca
4741 ccttcaggga gagagaggag gaggggaatc ctgtggaaga tgctccaaag tatacatatt
4801 ggcaactatg ccagaatata accgagaagc tagcgtccat gggcatctcg gagggcggcg
4861 atgccctaag aaccctcatt gtggacatcc ccagcttcgt caaagtgttc aaggggatag
4921 acagcacggt agaggcagag ctcctaaagt ttattaactg catgatcaaa aacaattaca
4981 acttcagaga gaacatcaaa tccgtccatc acatccttca gtttgcatgc aacgtatact
5041 ggcaggcgcc gtgcccggtt tttctgaccc tttactacaa gtcactgctg acggtcatac
5101 aggacatatg tctgacgtca tgtatgatgt acgagcagga caacccggcc gtgggaattg
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Fig. 3 (cont.)

6841 tggaaaacgt ggctgatgct ctggccacgt tgggagtgtg cactagcaga aaactgtctc
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6961 aggtttaatt tttacggaaa ttgggccttg gagttaaagc tgtcactaat aaacgacgtt
7021 gaaattttct ttaaacgtct tagtagcgtt ttttattgta taggatcggg cagtgctctg
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7381 gatgaaatca gacagagctc tctaatggcg gtaggagatc accacatttt cggagaggtg
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9061 tgtcacggtc tacaggggct tgacagagtc cgccatcacc aacaagtatg aactcccgag
9121 acccgtgcca ctctatgaga taagccacat ggacagcacc tatcagtgct ttagttccat

Fig. 3 (cont.)

9181 gaaggtaaat gtcaacgggg tagaaaacac atttactgac agagacgatg ttaacaccac
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9301 ggtcatctac gcggaacccg gctggtttcc cggcatatac agagttagga ccactgtcaa
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Fig. 3 (cont.)

11521 tgccgtggac accacatttc cacccaccta cttccagggc cccaagcggg gagaagtatt
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Fig. 3 (cont.)

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15181 gacgggagaa agactttgca aagtaaccgt ttacaacacc cattcgacag catgcaagaa
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15781 cgagcacata tggcgcagga gtcagagcag tgctcccgtg cgtttgcagt gtgcagtagt
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16081 gttaggatct tgcccactgt tgtggaaagc tcctcgagcg tgctgatttt tagactgcgt
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Fig. 3 (cont.)

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16381 aaaagccggc tggcaaagcc gtttgcacgc ctgtccgcgg agacgactga ggagtgtcgc
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16621 ccagtcatct acagcggacc aaaaattacg ctggccccgc gcggccgcca ggtagtctgg
16681 cacaacaaca gctacacgtc ctccctgcca tgcaaagtca cagccatcgt gtcaaaccac
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Fig. 3 (cont.)

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18781 cgccacagta agtggcccta taccgctcag cgcccaagtt gttacagtca cacccaaccg
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19081 cctctactgc acactctggt gatgtcggcc gaggtctata tggaaacact tcaacccgcg
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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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41761 cgatgcagtc tgccactgcc atacacatga cgagtctgta gatggccggt gtgcccggat
41821 acactagata gtaggtacaa tctggggtac tgacgaccac cctgtatggc tttggtccgg
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Fig. 3 (cont.)

41941 agcccaccag atcccgtccg ttaaccttga cgtcctggtg cttactctgt ttcgacaggt
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42361 tgaattcgca gggtttatca caatcatcgg taagttccca tgatcccacc gcaggtaggt
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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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55501 gtggaatcct actgttgagt ggaaaaggga cccagtatat aacaggcaat gttcagaccc
55561 aaaggtgtcc aactacgggc gactatctaa tcatcccatc gtatgacata ccggcgatca
55621 tcaccatgat caaggagaat ggactcaacc aactctaaaa gagagtttat taagtcggct
55681 ctggaggcca acatcaacag gagggcagct gtatcgctat ttgatcgttt tgggggtagc
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55801 ctgaagcgcg aagccgagct cgggactctg gtacgcaagg cgggccagag gtttgaggcg
55861 ctgaaaaggg aacggtcaat tttgcgccag ccgcgcgacc tcccacgggt cgccgacatt
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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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81601 gcggatagag accctatccg gtcgttcaat agaggactgg ctacactcgg ccgtttggga
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Fig. 3 (cont.)

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83881 cggcttcggc attatttcga gtacgacgca ggcgtctgag aaattactgc acctcgccgc
83941 aaagtctcgc ggggacgggg cgtggggctc taacttgcca accgccaccg gtttccccag
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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

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Fig. 3 (cont.)

Human gene for granulocyte-macrophage colony stimulating factor (GM-CSF).

ACCESSION X03021

VERSION X03021.1 GI:31858

Miyatake,S., Otsuka,T., Yokota,T., Lee,F. and Arai,K.

TITLE Structure of the chromosomal gene for granulocyte-macrophage colony stimulating factor: comparison of the mouse and human genes

JOURNAL EMBO J. 4 (10), 2561-2568 (1985)

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Fig. 3 (cont.)

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Fig. 3 (cont.)